

Building an Equitable School System for All Students and Educators



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The Pre-K Team



Back row: Jessica Row, Fridley Public Schools; Kay Langer, Rosemont-Apple Valley-Eagen Public Schools; Jody Jenstad, Northland Community Schools. Front row: Marty Scofield, Minnesota Department of Corrections at Minnesota Correctional Facility in Lino Lakes; Becky Gamache, Duluth Public Schools.

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Introduction: Building an Equitable School System for All Students and Educators

Minnesota's public schools have long been a source of pride for our state. After all, our students have earned the highest average on the ACT multiple years in a row. However, we also have one of the worst racial achievement gaps in the nation. In addition, Minnesota educators are leaving classrooms to find other work in droves.

The dual crises of racial disparity and educator attrition expose a soft underbelly of public education in Minnesota—chronic underfunding of our schools has created a racialized system of haves and have-nots.

The dual crises of racial disparity and educator attrition expose a soft underbelly of public education in Minnesota. Chronic underfunding of our schools has created a racialized system of haves and have-nots. And underfunding has left teachers under-resourced and driven many out of our classrooms because these professionals simply do not have the tools to do their job effectively.

From approximately 2000-2010, the state of Minnesota changed the way it funded schools and then spent a decade chipping away at school funding. Decision-makers at that time froze funding, and for eight straight years they did not even provide an inflationary increase to schools. This dug a massive budgetary hole for schools, driving up class sizes, forcing districts to leave even basic building or structural repairs undone, and slashing support services that are critical to student success.

At the same time that funding became scarcer, demands on schools started to rise. New testing regimes were imposed with no money to implement them. Demands for paperwork for everything from special education to teacher evaluations rose dramatically. Mandate upon mandate was leveled at school districts from state and federal officials, but no resources were provided to meet them. Pressure to do more, often not for students but to fulfill mandates, was exacerbated by declining resources. All of this made it harder to retain great educators, and more difficult to close opportunity gaps directly related to the achievement gap.

Intentionally or unintentionally, Minnesota lawmakers created a system where a basic, inflationary increase in education funding was and is "historic," not because it's the amount of resources that schools need to meet these demands, but because the bar was set so low in the first decade of the 21st century that even a basic amount of funding is now seen as a major investment.

But as it turns out, even the "historic" investments that have been made over the past six years have not come close to erasing the massive burden of new mandates that came with a decade of disinvestment in public schools.

Minnesota students—all of them, no matter where they live or what race they are—deserve a 21st century education delivered by highly-skilled professionals.

Why does this matter? Because Minnesota students-all of them, no matter where they live or what race they are-deserve a 21st century education delivered by highly-skilled professionals. This is a moral and economic imperative for our state, which is why it is spelled out in the Minnesota Constitution.

"The stability of a republican form of government depending mainly upon the intelligence of the people, it is the duty of the legislature to establish a general and uniform system of public schools. The legislature shall make such provisions by taxation or otherwise as will secure a thorough and efficient system of public schools throughout the state."

> Article XIII, Section 1 Constitution of the State of Minnesota

The framers of the Constitution of the State of Minnesota gave the state government the direct responsibility of creating a fair and uniform public school system. In what follows, we explore 10 education policy areas to show how the state has not met its moral and economic obligation as promulgated in the state constitution. Minnesota has hard working educators and bright and talented students. However, state leaders have made policy decisions that have hampered the success of students and devalued the work of educators. It is time to reverse this trend. We offer this paper as a call for critical reform. Lawmakers can do better to build a truly equitable school system for all students, all educators, and all communities in the state.

Lawmakers can do better to build a truly equitable school system for all students, all educators, and all communities in the state.

Minnesota has a promising, but troubled, structure from which to reverse national and state trends that harm all students, especially students of color. We support the Minnesota Education Equity Partnership's (MnEEP) (2016) call for lawmakers to repay the "educational debt" that has resulted in an inequitable education system. The partnership also argued:

the cumulative effect of generations of social, political and economic injustice creates an unpaid "education debt" from society that results in larger percentages of students of color and American Indian students persistently achieving less than their White peers... The longer Minnesota and its districts and schools allow these annual disparities to continue between the achievement of White students and the achievement of students of color and American Indian students, the greater the overall educational debt becomes because disparities reinforce and produce disparities (Minnesota Education Equity Partnership, 2016, p. 19).

State leaders owe the communities, educators, and students of Minnesota resources to build strong schools.

Minnesota's lawmakers have not created an equitable mechanism for funding public schools. In addition, state leaders continually embrace poor policy ideas that exacerbate racial divides in education. We offer a quick glance at (1) the funding shortfalls in the state, (2) the racial achievement gaps in Minnesota, and (3) the teacher attrition epidemic to frame the remaining 10 sections. Baker, Farrie, and Sciarra (2018) have confirmed that:

- "When states make a greater fiscal effort to fund their schools, school spending goes up, and that translates into higher staffing levels, smaller class sizes and more competitive wages for teachers" (p. 1).
- "A study of school finance reforms of the 1970s and 80s finds that increased spending led to higher high school graduation rates, greater educational attainment, higher earnings, and lower rates of poverty in adulthood" (p. 1).
- 3. "Fair and equitable state finance systems must be at the center of efforts to improve educational outcomes and reduce stubborn achievement gaps among students" (p. 1).

It is time to dismantle the systems of White supremacy and giveaways for corporations and the richest few that have led to inequitable outcomes for many students in the state.

It is time to dismantle the systems of White supremacy and giveaways for corporations and the richest few that have led to inequitable outcomes for many students in the state.

Education Funding Shortfalls in Minnesota

In each of the following 10 sections, we show how Minnesota has failed to fund specific parts of public education. We also offer the costing numbers required to fix the financial burdens placed on local education agencies. We support the arguments of school finance expert, Bruce D. Baker, who recently argued "the central policy objective of government-financed public school systems is to provide for an equitable system of schooling that makes efficient use of public resources to achieve desired (or at least, adequate) outcome goals" (Baker B. D., 2019, p. 17). However, he also noted that this goal is difficult to achieve because in the United States, "our education system is actually fifty-one separate educational systems providing vastly different resources, on average, and with vastly different outcomes" (Baker B. D., 2019, p. 6). Minnesota's lawmakers need to fund all schools in the state.

We ask lawmakers to quit listening to the "persistent denial by pundits across the political spectrum of the importance of money for determining school quality and for achieving equity" (Baker B. D., 2019, p. 2). School finance is a direct reflection of how much a state values students and educators.

Researchers have proven that investments in public education produce positive gains for states (Baker B. D., 2019, p. 6). In Graph 1, we report the findings of the Education Law Center's (2018) "State Funding Profiles." Minnesota has consistently received a grade of "C" for its efforts to fund public schools. This "average" rating has produced poor results for all students, especially students of color. Unfortunately, previous administrations and legislatures have only given minimal efforts to reversing these trends. We ask lawmakers to quit listening to the "persistent denial by pundits across the political spectrum of the importance of money for determining school quality and for achieving equity" (Baker B. D., 2019, p. 2). School finance is a direct reflection of how much a state values students and educators. State leaders should heed the warnings issued by Baker (2019). In particular, it is time for lawmakers: (1) to recognize "the importance of equitable and adequate funding as a prerequisite condition for quality public (or any) education systems."

(2) to ignore "empirically weak, politically motivated research advancing preferred policies of choice, market competition, and disruptive innovation as substitutes for additional resources."

(3) to abandon "a continued full-speed-ahead approach to the preferred policies without regard or careful measurement of the consequences of those policies" (Baker B. D., 2019, pp. 226-227).

Minnesota can, and should, equitably fund all schools for the benefit of all students and educators.

GRAPH 1: MINNESOTA'S SCHOOL FUNDING PROFILE

EFFORT

The ELC develops these grades based on the "income capacity" of a state's residents as well as their ability to "support public services" through taxation (Baker, Farrie, and Sciarra, 2018, p. 15). In 2015, Minnesota spent a mere \$40 on public education for every \$1,000 generated in personal income activity and \$36 for every \$1,000 generated in economic productivity.

GRADE



INCOME

K-12 expenditures per \$1,000:

GROSS STATE PRODUCT

K-12 expenditures per \$1,000:



*We reproduced Graph 1 with permission from researchers at the Education Law Center. The original authors retain copyright permission to this image. The original image appears in: Baker, Bruce D., Danielle Farrie, and David Sciarra. 2018. "Is School Funding Fair? A National Report Card", 7th Edition. www.schoolfundingfairness.org. The funding issues that plague Minnesota schools perpetuate the racial achievement gaps and cause teacher attrition.

The funding issues that plague Minnesota schools perpetuate the racial achievement gaps and cause teacher attrition. These related issues can be addressed by stable, fair funding for Minnesota schools in the 10 areas identified in this paper.

Equity and Minnesota's Public Schools: Achievement Gaps, Discipline Gaps, and Legacies of White Supremacy

Minnesota's lawmakers need to give critical attention to the tremendous racial disparities that plague public schools. MnEEP (2016) has argued:

At the center of Minnesota's historical and cultural inheritance are unresolved legacies of both the conquest of American Indian nations, including broken treaties, the stealing of land and attempted genocide, and the enslavement and continued oppression of Blacks as evidenced by massive incarceration rates, suspensions from school, unemployment, etc. Asian Americans, Latinos, African and Arab immigrants and refugees also face forms of discrimination similar to earlier times in our state's and nation's history by not being able to become "White" like previous European or Scandinavian immigrants and settlers. Minnesota's legacies are much like the rest of the United States of America. Despite the constant struggle and fight against past and current forms of oppression, what we choose to tell and include in our history has profoundly influenced the way we view the educational progress made by students of color and American Indian students (Minnesota Education Equity Partnership, 2016, p. 11).

The racial academic achievement gaps and the racial discipline gaps are direct byproducts of structural racism rooted in White supremacy.

MnEEP, and other researchers, have identified systems of White supremacy as the driving forces behind inequities in public education. White supremacy "is the effect of an historically-based, institutionally-perpetuated global and national system of exploitation and oppression of peoples of color by White peoples of European descent for the purpose of maintaining and defending a system of wealth, power, and privilege based on whiteness" (Minnesota Education Equity Partnership, 2016, p. 21). The racial academic achievement gaps and the racial discipline gaps are direct byproducts of structural racism rooted in White supremacy.

White students are the only demographic that surpass state averages for reading achievement, math achievement, and the four-year graduation rate.

There is a difference between identifying the "White supremacy" that drives systemic oppression and calling an individual a White supremacist. Following the work of MnEEP and other researchers, we use this frame to speak of the ways policies and systems have benefited White Minnesotans at the expense of other demographics. Like MnEEP and several critical race scholars, we do not believe all White people are part of a monolithic group. Nor do we believe that "all White people have conscious beliefs that espouse White supremacy or act with intentionality to maintain and strengthen White supremacy" (MnEEP, 2016, p. 21). Instead, we argue that decisions rooted in White supremacy have benefited all White people, although some White people have garnered greater benefits than others have. We offer data about the achievement gaps as proof of this frame.

Minnesota's educators are working to reverse these trends, but state policymakers continue to tie their hands and hamper their efforts with poor funding.

The Minnesota Department of Education (MDE) (2019) recently provided the state Legislature with the most recent data on achievement gaps in Minnesota. We reproduced MDE's data in Chart 1. MDE has now confirmed that yet again. White students are the only demographic that surpass state averages for reading achievement, math achievement, and the four-year graduation rate. In addition, the data shows that Black students hold an average reading achievement rate of 33.9% (25.3% below the state average) and an average math achievement rate of 28% (28.2% below the state average). Minnesota's educators are working to reverse these trends, but state policymakers continue to tie their hands and hamper their efforts with poor funding.

Minnesota also ranks among the states with the worst racial disparities. Researchers at Johns Hopkins University provide regular updates on the progress each state is making to close racial achievement gaps. In the most recent report, DePaoli, Balfanz, Atwell, and Bridgeland (2018) used the "adjusted cohort graduation rate" (ACGR) to illustrate racial disparities in public education. They have argued that the ACGR measure could be improved but it "is still considered to be the 'gold standard' of graduation rate metrics with individual student identifiers" (DePaoli, Balfanz, Bridgeland, & Atwell, 2018, p. 10). These researchers confirmed:

- 1. The graduation rate gap between White students and Black students in Minnesota is higher than 20 points (p. 9, 26).
- 2. The graduation rate gap between White students and Hispanic students in Minnesota is higher than 20 points. Only Minnesota and New York have gaps this high in this category (p. 9, 26).
- 3. Minnesota has the third highest graduation gap in the nation between low-income and non-low-income students. Only North Dakota and South Dakota have higher gaps in this category (p. 27).
- 4. Minnesota has the second highest postsecondary attainment gap between White and Black residents, ages 25 to 64 (p. 38). Only Connecticut has higher gaps in this category.
- 5. Minnesota has the eighth highest postsecondary attainment gap between White and Hispanic residents, ages 25 to 64 (p. 38).

Minnesota must do better and reverse these problematic trends.

STUDENT GROUP	MATH ACHIEVEMENT RATE	READING ACHIEVEMENT RATE	FOUR-YEAR GRADUATION RATE
All students	56.2	59.2	82.7
American Indian and Alaskan Native	28.2	34.5	50.7
Asian	55.4	54.6	85.5
Black	28.0	33.9	64.7
Hispanic or Latino	33.8	38.5	66.3
Native Hawaiian or other Pacific Islander	42.0	50.3	62.7
White	65.2	67.5	88.0
Two or more races	49.1	55.3	71.1
English learners	31.0	31.2	64.7
Students eligible for free or reduced-price meals	35.9	40.3	69.0
Students in special education	32.0	33.5	61.2

CHART 1: ACADEMIC ACHIEVEMENT GAPS IN MINNESOTA

*Reproduced from (Minnesota Department of Education, 2019, p. 7).

Minnesota's Teacher Exodus

One out of every three teachers leaves the profession in the first five years of employment.

In addition to the deeply entrenched inequities built into our education system, Minnesota, like most states in the nation, is facing a crisis in the form of a mass exodus of teachers from the profession. In our state, one out of every three teachers leaves the profession in the first five years of employment. The average baccalaureate graduate carries a student debt load that requires payments of between \$350 and \$450 per month. Family health insurance premiums for educators are sky high, in many cases requiring teachers to pay over \$1,000 per month.

Teachers of color leave at a rate 24% higher than their White counterparts.

In a survey conducted by the American Federation of Teachers (AFT) of more than 30,000 teachers nationwide, 89% of the respondents reported being enthusiastic about their profession at the start of their careers. Only 15% sustained that enthusiasm as their careers progressed (Educator Policy Innovation Center, 2016, p. 12). One out of every three teachers leaves the profession in the first five years with a student debt load of \$32,000, on average. This is an attrition rate unlike any other similar field. And while Minnesota has a dramatic and devastating shortage of teachers of color, teachers of color leave at a rate 24% higher than their White counterparts.

Minnesota's shortage of teachers of color is one of the worst in the nation. Though our student population is made up of 33.5% students of color (identified as American Indian, Asian, Black, Hispanic, Hawaiian/Pacific Islander, and multiracial), only 4.3% of our teaching workforce is made up of teachers of color (Wilder Research, 2019, p. 4). The percentage of students of color has been increasing steadily over time. The percentage of teachers of color has not.

Ingersoll and May (2011) outlined three reasons often cited for why the mismatch between teachers of color and students of color is detrimental. These included: 1) Demographic parity. This argument holds that "minority teachers are important as role models for both minority and White students." 2) Cultural synchronicity. This argument "holds that minority students benefit from being taught by minority teachers because minority teachers are more likely to have 'insider knowledge' due to similar life experiences and cultural backgrounds." 3) Candidates of color. "This argument holds that candidates of color are more likely than non-

minority candidates to seek employment in schools serving predominantly minority student populations, often in low-income, urban school districts," which are the schools that suffer disproportionately from teacher shortages (Ingersoll & May, 2011, p. 11).

Achinstein et al. (2010) cited the increasingly large body of research showing that teachers of color "can produce more favorable academic results on standardized test scores, attendance, retention, advanced-level course enrollment, and college-going rates for students of color than White colleagues" (Achinstein et al., 2010, p. 7). Many other scholars have argued "that this demographic gap creates a teaching-learning disconnect that contributes to the too-often dismal academic performance, high dropout rates, and low graduation rates of diverse urban students" (Waddell & Ukpokodu, 2012, p. 16).

Burciaga and Kohli (2018), explained further what teachers of color bring to students. They bring "knowledge and skills cultivated by communities of color to resist and survive racism" (Burciaga & Kohli, 2018, p. 6). Minnesota needs to get serious about increasing the numbers of teachers of color in our teaching workforce, which will mean looking honestly at the structural racism inherent in our current school systems. State lawmakers need to get serious about the teacher attrition problem overall, which is wreaking havoc on our districts and leaving too many students without teachers trained to meet their educational needs.

Districts cannot invest in high-quality induction and mentoring programs in part because of the amount of money being spent on the constant process of recruiting and hiring new teachers.

Districts cannot invest in high-quality induction and mentoring programs in part because of the amount of money being spent on the constant process of recruiting and hiring new teachers. According to the Learning Policy Institute, the average cost to a school that has to hire a new teacher is \$20,000 (Learning Policy Institute, 2018). Given that one out of every three new teachers in Minnesota leaves the classroom in the first five years, Minnesota districts are spending millions of dollars on the problem of high teacher turnover. In the 2017-18 school year, 2,392 teachers were new graduates of teacher preparation programs, both from Minnesota and from other states. If one third of those teachers leave in their first five years, Minnesota districts will be looking to refill 789 positions. At an estimated cost of \$20,000 per new hire, that's \$15,787,200 spent on teacher turnover in just five years. In addition, that figure does not take into account the hiring costs associated with replacing retirees and other educators leaving later in their careers.

And the costs are not merely financial. There are also instructional and academic costs to high levels of teacher turnover. High levels of teacher turnover "in a particular school may have adverse impacts on outcomes for the school's students. Student outcomes will be adversely affected, for example, if turnover leads to a lower quality mix of teachers, loss of coherence within the school's educational program, or the inability of the school to replace all the teachers who leave" (Sorensen & Ladd, 2018, p. 1). In a recent study, researchers looked closely at how schools responded to teacher turnover and exposed part of what is at stake:

A school may respond to the loss of teachers in a particular year or subject by increasing class sizes, either as a chosen strategy or because of its inability to hire replacement teachers, either from within the school or outside the school. If the replacement teachers are more qualified than the ones they replace either in terms of instructional effectiveness or their ability to work with others toward the institutional mission of the school or both, the change could be beneficial for students. In contrast, if the replacement teachers are less qualified than the ones they replace along either or both dimensions, the change will be detrimental to student outcomes and to the smooth operation of the school (Sorensen & Ladd, 2018, p. 3).

Sorensen and Ladd explained further:

We consistently find that the loss of math or ELA teachers at the school level leads to larger shares of such teachers with limited experience or who are lateral entrants or have provisional licenses. We find suggestive evidence that turnover also leads to higher shares of teachers that are not certified in the specified subject, and of teachers with lower average licensure test scores. All four of these characteristics typically signify less effectiveness in the classroom, and may signify a lower ability to contribute to the coherence of the school's mission. Greater shares of the teachers with these characteristics may also contribute to higher future turnover rates, given that departure rates for members of these categories of teachers tend to be high. Moreover, we find that the adverse effects of turnover rise linearly with the rate of turnover and are higher in high poverty schools and higher in period of student enrollment growth (Sorensen & Ladd, 2018, pp. 3-4).

Overall, high rates of teacher turnover are costly in terms of their impacts on instruction and academic achievement, in addition to the financial burden they impose on the system.

Lastly, the costs of failing to address both the low number of teachers of color in the workforce and the high rate at which they leave the profession costs our state dearly, in that teachers of color have the greatest potential to recognize and address education inequities.

What We Must Do, Together

Minnesota's lawmakers can take drastic steps in 10 education policy areas to address systemic inequity and reverse the trend of teacher attrition. The list of 10 includes:

1. EDUCATOR COMPENSATION AND WORK ENVIRONMENTS

Educator salaries have not kept up with inflation, and when we add in the costs of health insurance and average student loan payments, too many educators and potential educators simply cannot stay in the profession. New teachers earn about 20% less than individuals with college degrees in other fields, and that gap widens to roughly 30% by midcareer. This teacher pay gap has not always existed, but rather is the result of decisions made at the Legislature over the past 30 years to underfund our public education system. In addition, Minnesota's education support professionals do not earn a living wage. Many of them are paid less than workers who work in entry-level retail and food service positions, and in too many cases, they work simply for the health care benefit and take home paychecks that range from pennies to less than \$100.

2. TEACHER MENTORING AND INDUCTION

Minnesota's failure to fully fund its education system has bled districts of dollars that could be used to fund robust induction and teacher mentoring programs. Research on the topic of what types of induction and mentoring programs lead to more equitable and better outcomes for students and greater teacher attrition rates is not hard to find. The United States is one of the only developed countries that takes brand-new teachers and throws them into classrooms for full days on their own without time to reflect with one another and without time to observe, be observed by, or collaborate in a meaningful and regular way with mentors and other experienced teachers. Further, Minnesota's teachers of color have specific needs in the areas of induction and mentoring, given that they are often completely isolated and given that the system they work for is inequitably built and funded. They, too, need time to collaborate, to support one another, and the induction and mentoring process needs to reflect that need. Such collaboration takes time, and Minnesota's districts are so strapped for dollars, that they simply cannot afford to develop programs for newer educators that allow for these best practices to be implemented.

3. SCHOOL INFRASTRUCTURE

The physical state of our public school buildings is inadequate and vastly inequitable. Given the state's model of underfunding districts such that they have to rely on local tax levies to survive, in too many cases, a student's ZIP code determines the quality of his or her learning environment. School facilities play a significant role in determining a student's sense of selfworth, they correlate to academic achievement, and they correlate to teacher attrition rates. Many of our students and educators are working in schools without natural light, without proper ventilation, and without the appropriate resources for learning, whether that be ageappropriate playground equipment or chemistry laboratories with appropriate equipment. They work in schools with plumbing, windows, and HVAC systems that are in disrepair, and in temporary buildings that were never intended for long-term use.

4. PRESCHOOL

When the K-12 system was initially formed, we knew far less than we know now about brain development in years birth-five. Our state's achievement gaps are firmly entrenched before students even get to kindergarten. We now know that the early years of brain development are the most dynamic years in a person's life. Without appropriate education, whether that be by parents who understand how their infants' access to language is correlated to their capacity for literacy or by making sure four-year-olds have access to age-appropriate, play-based education, the brain's capacity for further learning in all areas is greatly diminished. The United States lags far behind other developed countries in its commitment to public education for our youngest learners, and Minnesota lags far behind most other states in the country.

5. TRAUMA-INFORMED, RESTORATIVE SCHOOLS

Over the past 30 years, our public schools have relied more and more heavily on exclusionary discipline as the only approach to student behavior problems. We have known for some time now that zero tolerance and three-strikes policies, and policies that send disruptive students directly to exclusion, whether in the form of simple removal from the classroom without appropriate intervention, suspensions, expulsions, or direct referrals to law enforcement, have failed to decrease disruptive incidents in our schools and have had a negative effect on student academic outcomes. They have also led to an inexcusable American invention—the school-to-prison pipeline. Trauma-informed, restorative schools have a wholly different approach to student behavior, and when developed with fidelity to the practice, they reduce inequitable disciplinary outcomes for students, they reduce the frequency of disruptive incidents, they increase student academic achievement, and they lead to better satisfaction for students, parents, communities, and teachers.

6. TEACHER PREPARATION

Instead of addressing the reasons that teachers leave the profession at a rate unlike any other, instead of addressing the reasons that teachers of color leave at even higher rates than their White colleagues, and instead of investing in programs to fully prepare more candidates of color to enter the profession, in 2017, the Minnesota Legislature responded to district-level complaints about the increasing difficulty of filling open positions with qualified teachers by simply lowering the requirements for teacher licensure. And they did so in dramatic fashion. In the span of time it takes to adopt one law, Minnesota moved from being among the states with the highest levels of requirements for teacher licensure to being among the states with the lowest levels of requirements for teacher licensure. Unless the licensure law is changed, our most high-needs students will be even more likely than they already are to be taught by teachers who lack content training and pedagogical training to meet their students' needs.

7. SUPPORT PROFESSIONALS

Because Minnesota has underfunded our public school system, districts have had to reduce the number of related service providers (RSPs) and specialized instructional personnel (SISPs). Schools with higher populations of students of color or larger concentrations of students with disabilities have some of the largest opportunity gaps, and they are often the same schools that lack enough RSPs and SISPs to help reverse these trends. School counselors, speech language pathologists, school psychologists, school-based physical therapists, school nurses, school-based occupational therapists, and school social workers play a critical role in the success of our schools, and yet our schools are so starved for operating dollars that they simply cannot employ sufficient numbers of people in these fields. This problem further exacerbates the achievement and opportunity gaps, and it further exacerbates our ever-worsening teacher attrition rates.

8. FULL-SERVICE COMMUNITY SCHOOLS

The full-service community school strategy is an educational equity-focused model that places the needs of students at the center of analysis and decision-making in school improvement. The development of a community school begins with a comprehensive needs assessment that examines opportunity gaps and looks at systematic disparities affecting student achievement. The school itself is then modeled to meet those community-specific needs. A \$75 million state investment would allow every school currently identified in need of improvement under federal law to adopt the full-service community school model. As opposed to funding unproven, or even detrimental education reforms, Minnesota would make real progress in closing opportunity gaps by instead funding full-service community schools.

9. PUBLIC HIGHER EDUCATION

Minnesota's approach to funding our public institutions of higher education is deeply flawed. Over the past several decades, Minnesota has vastly disinvested in public higher education. In 1995, 12.2% of our state's budget went to higher education. Now, public higher education accounts for only 4% of the state's budget. As the state appropriation to higher education diminished, student debt skyrocketed. In addition, the state has adopted a model of appropriation to public higher education that has been misleadingly advertised and that has made the student debt problem much worse. What is left of the state's spending on higher education is divided into three pools: one for the Minnesota State institutions, one for the University of Minnesota institutions, and one for the State Grant Program. The myth that the State Grant Program helps those who most need assistance needs to be challenged, and that program needs to be recognized for what it is: a program that drives up tuition at our public institutions and doles out the largest grants to students who need the least assistance, while leaving those most in need with fewer and fewer options short of assuming massive amounts of debt or forgoing college altogether.

10. SPECIAL EDUCATION

Federal and state-level decisions to underfund special education needs lead to exactly the outcomes we would expect. Special education teacher positions are by far the most difficult to fill, and far too many of our special education students are being taught by educators who lack the training necessary to meet their needs. Teacher attrition rates are highest in these fields, as are educator injury rates. General education teachers lack the tools they need to work with special education students in their classrooms. Students of color are wrongly identified as in need of special education far more often than White students are, and they are overrepresented in our special education settings, which means their opportunities are greatly diminished and they are, again, less likely to be taught by educators with the training necessary to meet their needs according to best practices. Funding our districts such that they can meet the needs of their special education students, including better identifying who those students are, would allow them to adopt targeted policy interventions that address the needs of their special education students. Such policies include increasing measures to help special educators facing compassion fatigue, physical injuries, and burnout; building far more collaborative relationships between special education and general education teachers so that students really are being educated in the least restrictive environment possible; hiring more education support professionals and educators, including more educational support professionals of color to work in special education; developing outreach programs to increase parent awareness of special education services before kindergarten; and more.

What follows is a robust discussion of each of these 10 topics, including recommendations for addressing the problems with an equity lens and an eye toward teacher attrition.

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Educator Compensation and Work Environments

Researchers have documented the "professional wage gap" facing public educators. Average educator compensation sits well below the average compensation of other professional careers. All educators in Minnesota, teachers and education support professionals (ESPs), receive less compensation than they deserve. In many ways, it is more accurate to use the term "teacher pay penalty" or "ESP pay penalty" when discussing educator compensation. The educators of Minnesota deserve equitable compensation as compared to other professional careers.

"I have the same conversation every year with my student teachers. I ask about their future plans and where they want to work. And they say, they are going to China to teach English because they will be paid more. They plan to teach in China and save money and return to the United States if things change."

In a previous Educator Policy Innovation Center (EPIC), we reported the observations from Esther Hammerschmidt, a veteran Spanish teacher at Redwood Valley High School in southwest Minnesota. We wrote:

[Esther Hammerschmidt] has stories from the field about many teaching candidates completing their training in Minnesota and then leaving for more lucrative international positions. Hammerschmidt stated, "I have the same conversation every year with my student teachers. I ask about their future plans and where they want to work. And they say, they are going to China to teach English because they will be paid more. They plan to teach in China and save money and return to the United States if things change" (personal communication, January 15, 2016). This means teachers like Hammerschmidt provide teaching candidates with ample training and mentoring to set them up for success in their future classroom. Then, those candidates decide to leave the state and country because they cannot afford to accept the salaries Minnesota schools offer. This story should be even more alarming to policymakers because Hammerschmidt trains candidates in a specialty field that districts struggle to fill. Minnesota has to increase teacher compensation, so the state does not continue to lose homegrown candidates to other states and countries. (Educator Policy Innovation Center, January 2016, p. 39) Equitable compensation is a depressingly complicated topic for educators and education policymakers. Scholars have confirmed that most educators enter the profession for altruistic reason, and it is hard to find an educator who chose education for the compensation package. However, government leaders and school boards have preyed on the altruism of public educators by cutting salaries, slashing benefits, and creating financial problems that complicate the personal lives of our dedicated public educators.

Minnesota needs to become an example of how to better compensate educators. Lawmakers in this state should not be proud of the fact that Minnesota consistently ranks in the middle in national comparisons of educator compensation by state. In addition, Minnesota's policymakers should be appalled that the state's middle-of-the-road ranking is merely a state average. Many districts are well below the state average further complicating the financial lives of educators in those places. Finally, Minnesota's middle-of-the-road educator wages, as compared to other states, are still well below the wages and compensation other collegeeducated professionals receive for their labor.

Labor scholars use the term compensation as an umbrella term for the pay and benefits, current and deferred, an employee receives for performed labor. In an ideal world, all workers would earn an equitable and appropriate compensation package for the work they perform for organizations and governments. In reality, very few U.S. workers receive familysupporting wages and compensation, or equitable pay and benefits, to sustain their life and the lives of their dependents.

We need to offer a few caveats before we present our findings and recommendations on educator compensation. First, this section covers the compensation of licensed educators (teachers) and non-licensed professionals (ESPs). We use the term "educator" to refer to both ESPs and teachers. However, most teachers and ESPs have different collective bargaining agreements.¹ At times, we will need to write about just teacher compensation or just ESP compensation. We will indicate those moments for clarity.

Second, there are several organizations and researchers documenting statistics related to teachers. However, these same researchers rarely, if ever, provide data on ESPs. This is unfortunate and is an indication that the labor market continues to devalue the work of these important educators. In many places, we want to provide comparable numbers related to ESPs, but the information does not exist. We will point that out throughout this section.

Finally, we draw attention to the work of the National Council for Educational Support Professionals (NCESP), a division of the National Education Association. This group is working to change the lack of public awareness and consideration for the important work provided by ESPs. Lawmakers should remember these important realities:

- Education support professionals transport children from their homes to school and back.
- Education support professionals provide most of the direct services to students with disabilities.

¹ ESPs and teachers are on the same collective bargaining agreement in some districts, such as Minnesota District #287.

- Education support professionals prepare the cafeteria meals that nourish children.
- Education support professionals are the reason hallways are mopped, trash bins are emptied, schedules are printed, supplies are ordered, recess is kept safe, and buildings are repaired.
- Education support professionals serve as safety coaches and replacements for school resource officers.
- Education support professionals act as job coaches for students enrolled in pathway programs.
- Education support professionals assist administrators with scheduling, family communication, and office management.

Image 1.1, from the NCESP, highlights the several roles ESPs play in schools. Minnesota schools trust ESPs with students several hours each day, so Minnesota should equitably compensate these vital employees.

JOB CATEGORY	FUNCTION
Custodial and maintenance services	Building and grounds maintenance and repair
Security services	School resource, guard, campus monitors, police and security specialists
Food services	Food planning, preparation and service
Health and student services	Nursing, therapy and health support, community and welfare services
Para-educators	Instructional and non-instructional support
Clerical services	Secretarial, clerical and administrative support
Skilled trades services	Trades, crafts and machine operators
Transportation services	Transportation, delivery and vehicle maintenance services
Technical services	Computer, audiovisual and language technical support and media, public relations, writing and art specialties
Higher education	All higher education ESPs performing in the job categories listed above

IMAGE 1.1: ROLES AND DUTIES OF EDUCATION SUPPORT PROFESSIONALS

We reproduced this image from Education Support Professionals: Meeting the Needs of the Whole Student. Education Minnesota is a state affiliate of the National Education Association. (National Education Association, March 2015, p. 20). Scholars have consistently proven that there is a "professional pay gap" for teachers (some scholars refer to this phenomenon as a "teacher pay penalty"). ESPs also face a pay penalty, but researchers have not documented the differential with consistent tracking. Educators earn less than their similarly educated peers, and educator wages have tracked downward since the 1970s. Podolsky, Kini, Bishop, and Darling-Hammond (2017) have confirmed that

even after adjusting for the shorter work year in teaching, beginning teachers nationally earn about 20% less than individuals with college degrees in other fields, a wage gap that can widen to 30% by midcareer (Baker, Sciarra, & Farrie, 2015). Moreover, the difference between teacher compensation and that of other workers with a college degree has grown larger over time. (p. 22)

Nationally, scholars know teachers earn \$324 less per week than other college graduates do. This amounts to a loss of \$16,848 dollars annually, on average, for the trained professionals trusted to teach the children of this nation.

The professional wage gap for educators exists at all experience levels and throughout the entire career of a teacher. Graph 1.1 compares the average weekly wages of teachers to those of other college graduates. Nationally, scholars know teachers earn \$324 less per week than other college graduates do. This amounts to a loss of \$16,848 dollars annually, on average, for the trained professionals trusted to teach the children of this nation.

GRAPH 1.1: TEACHERS WEEKLY WAGES COMPARED TO OTHER COLLEGE GRADUATES

Teachers' weekly wages are 23% lower than those of other college graduates. Average weekly wages of public school teachers, other college graduates, and all workers, 1979–2015 (2015 dollars)



Note: "College graduates" excludes public school teachers, and "all workers" includes everyone (including public school teachers and college graduates). Wages are adjusted to 2015 dollars using the CPI-U-RS. Data are for workers age 18-64 with positive wages (excluding self-employed workers). Non-imputed data are not available for 1994 and 1995; data points for these years have been extrapolated and are represented by dotted lines (see Appendix A for more detail). Source: Authors' analysis of Current Population Survey Outgoing Rotation Group data. Economic Policy Institute. Graph 1.1 reproduced with permission from Sylvia Allegretto and Lawrence Mishel, The Teacher Pay Gap is Wider Than Ever, Economic Policy Institute and the Center for Wage & Employment Dynamics at the University of California, Berkeley, August 2016. (p. 7).

The deregulation and market-based trends that have damaged public education have also led to wage and benefit cuts for educators.

Teachers did not always face such a steep wage penalty. In fact, teachers in the 1960s earned wages comparable to other careers requiring college education. However, the deregulation and market-based trends that have damaged public education have also led to wage and benefit cuts for educators. In addition, advocates for teachers face an uphill battle when trying to alter these patterns because of the many false narratives that cloud the reality facing public educators.²

In the following pages, we correct public misunderstandings about educator labor and offer solutions to replace the policies that have stalled and deflated educator compensation for decades.

2 See the National Education Association's document titled (Teacher compensation: Fact versus Fiction.)
Public educators are outpacing all other professions in terms of illness and desires to change careers because of stress. Compensation includes comprehensive insurance, a reliable pension, and an equitable, familysupporting wage. All educators, and all workers in the United States, should feel valued, respected, and supported in their day-to-day job responsibilities.

Educators enter the profession for altruistic reasons, not for high salaries. However, they still deserve equitable pay and benefits.³ Minnesota cannot continue paying educators at abysmal levels. In addition, there are other portions of compensation and work life, beyond pay and benefits, which require the attention of policymakers. Public educators are outpacing all other professions in terms of illness and desires to change careers because of stress. Compensation includes comprehensive insurance, a reliable pension, and an equitable, family-supporting wage. All educators, and all workers in the United States, should feel valued, respected, and supported in their day-to-day job responsibilities.

If Minnesota's lawmakers are serious about improving education, closing opportunity gaps, and preparing every child to succeed in a 21st century economy, then it is time to recognize, and act on, what it takes to do so.

Minnesota needs to provide educators with higher wages and better benefits. The state also needs to implement policies and provide resources that will decrease work stressors that are leading to physical and mental illness among educators. Providing a modest level of student loan debt relief, raising ESP wages to \$15 per hour, and ensuring that every licensed teacher started their career at \$50,000 annually would require an over \$1 billion investment in education. However, there is a direct correlation between the quality of professionals working with students and student success. If Minnesota's lawmakers are serious about improving education, closing opportunity gaps, and preparing every child to succeed in a 21 st century economy, then it is time to recognize, and act on, what it takes to do so.

³ Educators continue to leave the profession in part because current compensation levels do not provide for the high costs associated with becoming an educator. Educator compensation is also inadequate as a counter-weight to the working conditions many educators face.

We makes this case by focusing on these questions:

- 1. How large is the professional wage gap for educators? What does the wage gap look like for different categories of educators?
- 2. What work stressors do public educators face? How are these stressors affecting the health and lives of public educators?
- 3. How can Minnesota improve working conditions and compensation for public educators?

Minnesota lawmakers must act now to prevent educator attrition from growing. In the following pages, we build a case for this action by covering the following topics:

- The cost of living for Minnesota educators.
- Oppositional voices about educator compensation.
- The educator wage gap: national and Minnesota specific trends.
- The sexist dimension of the educator wage gap.
- Education support professionals and the right to a living wage.
- The connection between educator benefits and the educator wage gap.
- The student loan debt loads burdening Minnesota's educators.

We then identify the work stressors facing educators by discussing the facts that:

- Educators lack basic resources for their classrooms.
- Educators work multiple jobs to earn equitable wages.
- Educators are struggling with their mental health.
- Educators of color face tremendous institutional stressors driven by systemic racism.

We conclude the section by offering a list of potential solutions policymakers should consider.

Cost of Living for Minnesota Educators

In the remainder of this section, we will be discussing both educator compensation and the financial strains educators face to meet their basic needs. Thus, we felt it was necessary to begin this section with a discussion of the basic family expenses Minnesotans face. We calculated these numbers using the EPI's Family Budget Calculator. EPI describes this calculator as a tool that

measures the income a family needs in order to attain a modest yet adequate standard of living. The budgets estimate community-specific costs for 10 family types (one or two adults with zero to four children) in all counties and metro areas in the United States. Compared with the federal poverty line and the Supplemental Poverty Measure, EPI's family budgets provide a more accurate and complete measure of economic security in America. (Economic Policy Institute)

Image 1.2 and Image 1.3 are annual costs for a family of two adults and two children in either rural Minnesota or urban Minnesota. We ask policymakers to consider these total annual costs as we discuss the problematically low wages Minnesota's educators earn.

IMAGE 1.2: ANNUAL COST OF LIVING, URBAN MINNESOTA

IMAGE 1.3: ANNUAL COST OF LIVING, RURAL MINNESOTA

ANNUAL COSTS 2 ADULTS AND 2 CHILDREN HENNEPIN COUNTY, MN			ANNUAL COSTS 2 ADULTS AND 2 CHILDREN PINE COUNTY, MN	
Housing	\$13,230		Housing	\$9,624
Food	\$9,836		Food	\$8,955
Child care	\$22,295		Child care	\$11,502
Transportation	\$13,633		Transportation	\$15,502
Health care	\$14,982		Health care	\$16,796
Other necessities	\$9,305		Other necessities	\$7,495
Taxes	\$15,201		Taxes	\$10,887
Annual total	\$98,483		Annual total	\$80,762

We reproduced Image 1.1 and Image 1.2 with permission from the Economic Policy Institute. We generated the images using EPI's Family Budget Calculator found at: Economic Policy Institute, Family Budget Calculator, https://www.epi.org/ resources/budget/. We have also reproduced EPI's explanation of how researchers define and caluclate each category. Housing,⁴ food,⁵ child care,⁶ transportation,⁷ health care,⁸ other necessities,[°] and taxes.¹⁰

4 Housing: Housing costs are based on the Department of Housing and Urban Development's fair market rents, which represent rental costs (shelter rent plus utilities) at the 40th percentile in a given area for privately owned, structurally safe, and sanitary rental housing of a modest nature with suitable amenities. Studio apartments were used for one-adult families, one-bedroom apartments for two-adult families, two-bedroom apartments for families with one or two children, and threebedroom apartments for families with three or four children.

- 5 Food: Food costs are based on the U.S. Department of Agriculture's national "low-cost" food plan and adjusted to each area using multipliers from Feeding America's Map the Meal Gap data. The low-cost plan is the second-least-expensive of the four Official USDA Food Plans and assumes almost all food is bought at the grocery store and then prepared at home. The USDA food plans represent the amount families need to spend to achieve nutritionally adequate diets.
- 6 Child care: Child care expenses are based on costs of center-based child care and family-based care for 4-year-olds and schoolage children, as reported by the Child Care Aware of America. We assume all families in urban areas use center-based care and all families in rural areas use family-based care. For one-child families, we assume the child is 4 years old. For families with more than one child, we assume the additional children are ages 8, 12, and 16, respectively.
- 7 Transportation: Transportation expenses are a combination of the costs of auto ownership, auto use, and transit use. Transportation cost data were provided by the Center for Neighborhood Technology (CNT). CNT created a modified version of transportation costs from its Housing and Transportation Affordability Index to account for differences in family types in the Family Budget Calculator.
- 8 Health care: Health care expenses include insurance premiums and out-of-pocket costs, and assume families purchase the lowest cost bronze plans on the health insurance exchange established under the Affordable Care Act. Data on premiums come from the Kaiser Family Foundation and the U.S. Department of Health and Human Services (HHS). Out-of-pocket medical costs are calculated from HHS's Medical Expenditure Panel Survey.
- 9 Other necessities: Other necessities include apparel, personal care, household supplies (which include items ranging from furnishings to cleaning supplies to phone service), reading materials, and school supplies. The costs for these items come from the Bureau of Labor Statistics Consumer Expenditure Survey, and use data reported for households in the second (from the bottom) fifth of households in the household income distribution.
- 10 Taxes: Taxes are calculated from the National Bureau of Economic Research's Internet TAXSIM, an online tool that calculates information on federal personal income taxes, state income taxes, and federal Social Security and Medicare payroll taxes.

Oppositional Voices: Market-Based Positions on Educator Compensation

Most economic attacks on public education, from both the political left and the political right, are rooted in market-based theories. There are two inherent problems with these lines of critique. First, market-based theories about competition and productivity do not fit in an education model. Educators are not selling widgets in a global marketplace; educators are training the next generation of citizens who will spur industry and research. School choice and charter school models across the nation have provided a plethora of examples of how market-based models fail. Market-based approaches will not solve teacher compensation problems.

Becky Hespen, president of the Osseo Education Support Professionals Association, reports that many of her members struggle to meet the basic financial needs of their families. Some of her members arrive three hours early to school and sleep in their cars because they share one automobile with their spouse.

Second, the same theorists who embrace market-based reforms fail to recognize that ESPs are walking off the job to earn higher wages at local restaurants, bars, and places of retail. Becky Hespen, president of the Osseo Education Support Professionals Association, reports that many of her members struggle to meet the basic financial needs of their families. Some of her members arrive three hours early to school and sleep in their cars because they share one automobile with their spouse. ESPs work with the most vulnerable students and provide vital services to Minnesota's students. They deserve wages that are comparable, and higher, than those they can earn in retail or food service.

In what follows, we debunk the misconceptions promoted by education reformers touting market-based economic fixes for public education. In this section, we are speaking solely to teacher wages because, as noted above, education reformers tend to usually only focus on teachers. We limit our critique to the work of Michael Podgursky, professor of economics at the University of Missouri-Columbia, because he is one of the most prolific and outspoken scholars pushing false narratives about educator pay and his arguments are a good example of most market-based, education reform theories cited in policy debates. Podgursky, and scholars like him, promote their agendas with two contradictory arguments. These scholars first decry the current education system for "not being market based" and impossible for comparison. Then they offer a critique of the system in which they offer marketbased comparisons. In his study for the George W. Bush initiative, Podgursky (2014) argued, "if a rational system of teacher compensation, aimed at recruiting and retaining high-quality teachers, were designed from scratch, it is unlikely it would bear any resemblance to the system currently in place" (Podgursky, February 2014). Then, Podgursky used this essay, and other works, to do exactly what he says is a "fraught process" by offering market-based comparisons to support his faulty claims. Podgursky (2014) has:

- posited, with faulty figures, that "generous" retirement benefits and other non-wage compensation has resulted in teachers enjoying "a total level of salary and benefits significantly above comparably educated private-sector employees." (p. 2)
- offered a problematic argument that the expertise of some educators work is "more beneficial" and makes them more attractive to other professions. In his worldview, these educators could command higher pay in other careers. (p. 4)

Podgursky (2014) also had the audacity to write, "A second grade teacher will earn the same pay as a high school chemistry teacher. Given the major differences in human capital investments by teaching field (e.g. elementary education versus secondary physical science) it is almost certainly the case that non-teaching opportunity earnings differ greatly as well" (Podgursky, February 2014, p. 5). To be clear, Podgursky has argued (1) teacher compensation is adequate and (2) some teachers are simply worth more than others.

Second, Podgursky and scholars like him, denounce single-pay schedules while ignoring the history behind these equalizing structures. To his credit, Podgursky (2014) did account for the history of these pay schedules by writing, "since elementary school teachers were nearly all women whereas high school teachers were largely male, early struggles for a single salary schedule were seen by some commentators as an important part of feminist struggles for pay equity" (Podgursky, February 2014, p. 4). This is correct. Educators, unions, and districts embraced single-salary schedules to recognize the service and experience of all teachers and to attempt to correct for race-based and gender-based inequities in compensation created by market-based compensation systems. So, why would lawmakers want to eliminate single pay schedule systems? We think it is better to make the steps and lanes of these systems more equitable rather than throwing them out the window all together.

Podgursky and others have built a strawhouse of bad arguments about teacher compensation, and it does not take a lot of analysis to provide the evidence to watch their house crumble. These scholars want to dismantle and replace, rather than improve, a corrective system. They also do not provide rational for how the "free market" will ensure equitable compensation for teachers. The U.S. Department of Labor annually confirms that professional pay schedules and compensation, the market-based wage systems Podgursky loves, have not helped close corporate gender pay gaps. Thus, we ask:

How will eliminating single-salary schedules protect educators from experiencing similar discrimination?

In addition, Podgursky and market-based scholars fail to mention that most teacher contracts across the nation allow teachers to earn additional wages by completing professional development, illustrating student growth, and earning higher degrees. They also often ignore the fact that many teachers start at higher places on the salary schedule because of their expertise, which is a practice most union leaders endorse.

We think all students need quality art teachers, language teachers, science teachers, and civics teachers. It is a dangerous practice to place more value in one set of academic expertise over another.

Finally, we call the question Podgursky-like scholars never ask. Who makes the compensation calls in their new market-based world? Do individual administrators get to decide the relative worth of each teacher? Are these scholars at peace with an art teacher making \$20,000 more than a biology teacher in one district while the reverse is true in the district next door? Educators introduce students to a wide range of perspectives and ideas. We think all students need quality art teachers, language teachers, science teachers, and civics teachers. It is a dangerous practice to place more value in one set of academic expertise over another.

Yes, expertise and training should be valued. However, we believe this means all types of expertise and training. It is regressive, and illogical, to dismantle a system that attempts to promote equal pay for equal work and equal training. The high school chemistry teacher will not be able to do his or her job without the foundation laid by the second-grade teachers in his or her district. Educators deserve fair and equitable compensation for the work they perform in schools, across all grade levels. Podgursky, and scholars like him, seem to be mainly interested in raising the wages of some teachers while suppressing the earnings of others, and we have more than enough examples to show those sorts of changes disproportionately harm women and people of color.

The Educator Wage Gap: National and Minnesota Specific Trends

The Economic Policy Institute (EPI) has been the leading organization tracking the educator wage gap across decades. Allegretto and Mishel (2016), writing for the EPI, documented that

For over a decade, starting with How Does Teacher Pay Compare? (Allegretto, Corcoran, & Mishel, 2004), we have studied the long-term trends in teacher pay. We followed this up with The Teaching Penalty, published in 2008 using 2006 data, and have updated our findings occasionally in other papers. Our body of work has documented the relative erosion of teacher pay. (p. 3)

"Average weekly wages (inflation adjusted) of public-sector teachers decreased \$30 per week from 1996 to 2015, from \$1,122 to \$1,092 (in 2015 dollars). In contrast, weekly wages of all college graduates rose from \$1,292 to \$1,416 over this period."

In 2016, The EPI published "The teacher pay gap is wider than ever: Teacher's pay continues to fall further behind pay of comparable workers," to further illustrate this growing problem. Allegretto and Mishel (2016), the authors of the report, concluded that "average weekly wages (inflation adjusted) of public-sector teachers decreased \$30 per week from 1996 to 2015, from \$1,122 to \$1,092 (in 2015 dollars). In contrast, weekly wages of all college graduates rose from \$1,292 to \$1,416 over this period" (p. 4). Podolsky, Kini, Bishop, and Darling-Hammond (2017) later promoted the work of the EPI adding legitimacy to the claim that nationally "teachers earned less than 11% in total compensation" than workers in other fields requiring college education (Podolsky, Kini, Bishop, & Darling-Hammond, May 2017, pp. 22-23).

The numbers become starker when disaggregated by different categories of educators. The pay gap grew higher, not lower, for educators with a master's degree (Podolsky, Kini, Bishop, & Darling-Hammond, May 2017, p. 23). Graph 1.2 shows that experience and advanced degrees did not help individual educators close the professional pay gap. Unfortunately, those educators just saw the gap continue to increase, and they likely did so while accumulating large amounts of student loan debt. Allegreto and Mishel (2016) also determined:

- For all public-sector teachers, the relative wage gap (regression adjusted for education, experience, and other factors) has grown substantially since the mid-1990s: It was -1.8% in 1994 and grew to a record -17.0% in 2015.
- The teacher compensation penalty grew by 11 percentage points from 1994 to 2015.
- The erosion of relative teacher wages has fallen more heavily on experienced teachers than on entry-level teachers. The relative wage of the most experienced teachers has steadily deteriorated—from a 1.9% advantage in 1996 to a 17.8% penalty in 2015. (p. 4)

Scholars like Podgursky say these numbers are inflated because teachers (1) work nine months a year and (2) earn attractive non-wage benefits such as pensions. Allegreto and Mishel (2016) accounted for these benefits and determined Podgursky-like scholars are wrong on this point. The total teacher compensation penalty was a record-high 11.1% in 2015 (composed of a 17.0% wage penalty plus a 5.9% benefit advantage). The bottom line is that the teacher compensation penalty grew by 11 percentage points from 1994 to 2015 (p. 4). Non-wage benefits, like health insurance and pensions, vary widely by district. However, even the best non-wage, compensation packages fails to fill the void of the professional wage gap.

GRAPH 1.2: TEACHER WAGES COMPARED TO OTHER COLLEGE GRADUATES BY AGE/EXPERIENCE

The teacher wage gap grew more for experienced teachers. Wage gap between public school teachers and similar workers, by age cohort, 1996–2015



Note: Figure compares weekly wages. Regression-adjusted estimates include controls for age (quartic), education, race/ ethnicity, geographical region, marital status, and gender for the pooled sample. Data are for workers age 18-64 with positive wages (excluding self-employed workers). Source: Authors' analysis of Current Population Survey Outgoing Rotation Group data. Economic Policy Institute. Graph 1.2 reproduced with permission from Sylvia Allegretto and Lawrence Mishel, The Teacher Pay Gap is Wider Than Ever, Economic Policy Institute and the Center for Wage & Employment Dynamics at the University of California, Berkeley, August 2016 (p. 10).

The location of a district also adds to the wage gap for some educators. Educators in rural areas face tremendous professional wage gaps because their districts cannot compete with the salaries offered in areas that are more affluent. Scholars have shown:

Rural districts have difficulties finding qualified experienced educators...Competitive salaries and the lack of local amenities are often determining factors in successfully recruiting qualified candidates (Timar & Carter, 2016). Rural school systems often lack the financial capacity to compete with larger urban and suburban areas (McLeskey & Billingsley, 2008; Timar & Carter, 2017). (Johnson, Ohlson, & Shope, 2018, p. 142)

In addition, Podolsky, Kini, Bishop, and Darling-Hammond (2017) have also confirmed that "great inequities in teacher salaries among districts within the same labor market leave some high-need, under-resourced districts at a strong hiring disadvantage. For example, an analysis found that the best-paid teachers in low-poverty schools earned 35% more than their counterparts in high-poverty schools" did (p. 23). The educator wage gap will look very different depending on where an educator works.

As we noted earlier, Minnesota ranks in the middle for educator compensation. All states are underachieving, and Minnesota is squeaking by with a middle-of-the-road average. The American Federation of Teachers (AFT) (2018) documented that the average educator in Minnesota earns \$57,782, which places the state as having the 21st highest average teacher salary (A decade of neglect: Public education funding in the aftermath of the great recession). In addition, the Education Law Center at the Rutgers Graduate School of Education is one of the few research organizations that disaggregates the pay gap by state. Graph 1.3 reports the most recent data about Minnesota and shows "the average 25-yearold teacher [in Minnesota] makes 82% of the salary of a non-teacher in the same labor market who is of similar education, hours worked and age" (Baker, Farrie, & Sciarra, 2018).¹¹ Unfortunately, this early career, base salary difference will only grow and continue to work against young educators throughout their careers.



GRAPH 1.3: MINNESOTA EARLY CAREER TEACHER SALARY COMPARED TO OTHER PROFESSIONS

We reproduced Graph 1.3 with permission from researchers at the Education Law Center. The original authors retain copyright permission to this image. The original image appears in: Baker, Bruce D., Danielle Farrie, & David Sciarra, 2018. "Is School Funding Fair? A National Report Card", 7th Edition. www.schoolfundingfairness.org.

Minnesota's policymakers must close this growing professional wage gap in order to make any progress in stopping educator attrition. It is time to pay educators what they are worth. Minnesota can do better than 21st out of 51.

¹¹ The numbers for Graph 1.3 and this claim are associated with the interactive infographics at www.schoolfundingfairness. org. These numbers are associated and tied to the same work and project as the report authored by Baker, Farrie, and Sciarra (2018).

The Professional Wage Gap Disproportionately Harms Female Educators

The Economic Policy Institute and other organizations have confirmed that female workers face a wage gap when compared to their male peers. There are many systemic reasons for this wage gap. However, Davis and Gould (November 2015) have argued:

Wage gaps are caused by several factors, but researchers have found that up to 41.1 percent of the overall pay gap between men and women is left unexplained after controlling for various factors such as industry, experience, and education...This likely means that factors such as discrimination are perpetuating wage gaps. (p. 7)

We hypothesize that women experience greater ramifications from a lack of paid family leave than men, and we will address this in a later section on the need for paid family leave for all educators. However, we open with the argument of Davis and Gould as a nice frame for a direct discussion about how wage gaps are real and salary schedules can help correct for many systemic biases that may perpetuate these pay differentials.

Wage gaps are real and salary schedules can help correct for many systemic biases that may perpetuate these pay differentials.

Female educators face an even larger pay gap than their male colleagues. Allegretto and Mishel (2016) documented that "in 1960, female teachers enjoyed a wage premium compared with other college graduates" (p. 3). Allegreto and Tojerow (2014) also argued:

The relative wage gap for female teachers went from a premium in 1960 to a large and growing wage penalty in the 2000s. Female teachers earned 14.7 percent more in weekly wages than comparable female workers in 1960. (p. 4)

This was not always the case for women educators. Brown and Stern (2018) used the work of Dana Goldstein "to deconstruct how, in the United States, teaching as women's work became historically and ideologically naturalized" and this in turn may have led to the devaluing of the labor (p. 179). We agree with two positions from other scholars who have accounted for the gender pay gap in education. Female educators face sexist compensation packages due to (1) market-based reforms and (2) a lack of respect for the education field from policymakers.

First, the gender pay gap is a product of the problematic market-based reforms that have created more inequity in public education. Proponents of market-based efforts to reform public schools tout the potential autonomy these efforts will bring for educators, administrators, and parents. However, the current incarnations of market-based reform have not delivered on these promises. Jabbar, Sun, Lemke, and Germain (2018) have rightly claimed, "market-based reforms are not gender neutral in their impacts" (p. 782). They also noted that

many of these market-driven policies aim, rightly, to give school leaders and educators on the ground more autonomy and discretion; however, in some areas, such as compensation and hiring, this discretion may allow for individual bias to play a greater role. Indeed, research has shown the role of institutional policies as a mechanism for discrimination. (p. 782)

Market-based reforms open all aspects of public schools, educator compensation included, to all sorts of individual biases. Jabbar et. al (2018) have confirmed "there is reason to believe that more discrimination in wages appears when wages become less fixed by salary schedule" (Jabbar, Sun, Lemke, & Germain, 2018, p. 773). It is fair to argue, "Teacher labor-market deregulation and school choice may have disparate impacts on women, who comprise the vast majority of teachers" (Jabbar, Sun, Lemke, & Germain, 2018, p. 756).

"Teacher labor-market deregulation and school choice may have disparate impacts on women, who comprise the vast majority of teachers" (Jabbar, Sun, Lemke, & Germain, 2018, p. 756).

Second, the gender pay gap derived from the public and political devaluing of "care work." Modern compensation practices reward outputs that build capital or produce measurable results. Education is a profession driven by "emotional labor" which is "is often invisible" (Jabbar, Sun, Lemke, & Germain, 2018, p. 764). Jabbar et al. (2018) have shown that education labor

has inputs and outputs that are harder to measure. For example, in education, standardized tests are commonly used to measure academic performance, but do not measure other outcomes, such as emotional skills or becoming lifelong learners, even though parents may value the care work and emotional labor conducted by teachers... this difficulty in measuring inputs and outputs may contribute to the relatively low pay for care workers. (p. 763) In addition, workers in professions devoted to the care of others are less likely to advocate for higher wages because of what scholars have called their "psychic income." They are "emotionally committed to the work" and they greatly value "the intrinsic rewards or satisfaction from such work" (Jabbar, Sun, Lemke, & Germain, 2018, p. 763). Sexist cultural notions can lead to this falling more on women and some employers may even expect female workers to "be more caring and supportive (e.g., listening to others' problems) than men even when they are in equivalent jobs" (Jabbar, Sun, Lemke, & Germain, 2018, p. 764).

Educators perform immeasurable labor that reaps innumerable rewards for society. It is time Minnesota compensate the vital emotional labor educators perform every day.

The gender pay gap must be part of the conversation

about educator compensation reform.

The gender pay gap must be part of the conversation about educator compensation reform. Graph 1.4 documents the national teacher pay penalty facing women educators. Minnesota can do better and offer all educators equal pay for equal work.

GRAPH 1.4: TEACHER PAY PENALTY BY SEX

Regardless of experience, the teacher wage gap expanded for female teachers. Wage gap between female public school teachers and similar female workers, by age cohort, 1996– 2015



Note: Figure compares weekly wages. Regression-adjusted estimates include controls for age (quartic), education, race/ ethnicity, geographical region, marital status, and gender for the pooled sample. Data are for workers age 18-64 with positive wages (excluding self-employed workers). Source: Authors' analysis of Current Population Survey Outgoing Rotation Group data. Economic Policy Institute. Graph 1.4 reproduced with permission from Sylvia Allegretto and Lawrence Mishel, The Teacher Pay Gap is Wider Than Ever, Economic Policy Institute and the Center for Wage & Employment Dynamics at the University of California, Berkeley, August 2016 (p. 11).

Education Support Professionals Do Not Earn a Living Wage

Minnesota's education support professionals (ESPs) provide vital services to their school communities. Unfortunately, they earn less than workers in professions in food service and retail. Images 1.2 and 1.3 in this document displayed how much it costs to provide for a family in Minnesota. For this reason, all educators in the state of Minnesota should earn a family supporting wage. In addition, no ESP should earn a wage less than \$15 an hour.

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In special education settings, ESPs are often the professional staff providing most of the direct support for students. Unfortunately, many ESPs work for minimum wages. Many schools experience high ESP attrition because they can make better wages at fast food establishments in their community. The AFT (2018) confirmed, "It is not unusual for wages to be below what is needed to pay for a basic family budget" (p. 4). Currently, some Minnesota ESPs clear less than \$1 per paycheck after districts deduct the premiums for health insurance. When schools close unexpectedly for weather, sometimes those same employees can end up owing the district for the cost of their health insurance premiums, because their take-home pay does not rise to the amount required for the employee portion of those premiums.

Every ESP and para in the state of Minnesota deserves a living wage, which is "the amount it takes to live in the communities where they work" (Rosser, 2015, p. 93). Policymakers must appropriately compensate ALL educators if they hope to build equitable schools. We find it unacceptable that ESPs and paras receive incredibly low wages for their work. We point Minnesota's policymakers to the appalling findings from a 2003 and a 2018 report on ESP/para salaries. In these reports, the AFT (2018) documented that "teacher's assistant salaries were consistently below what was needed to provide for a basic family budget for one parent and one child" and that "in no state does a teacher's assistant making the average salary earn enough to provide for the basics for him- or herself and one child" (p. 4). Every ESP and para in the state of Minnesota deserves a living wage, which is "the amount it takes to live in the communities where they work" (Rosser, 2015, p. 93). Policymakers must appropriately compensate ALL educators if they hope to build equitable schools.

Inadequate Educator Benefits Further Contribute to the Professional Wage Gap

Health insurance premiums are an important piece of the financial life of all educators. According to the 2017 annual survey by the Kaiser Family Foundation and the Health Research and Educational Trust, the "average annual premiums for employer-sponsored health insurance were \$6,690 for single coverage and \$18,764 for family coverage" (Claxton, 2017, p. 4). Minnesota's educators have had to bear the rising costs of health insurance while their wages have failed to keep up. The dollar amounts cited in the Kaiser and HRET survey are averages; health insurance premiums are much higher in many of Minnesota's districts. In some, they are so high that some educators forego employer health insurance or any health insurance at all in order to keep their jobs.

Minnesota's educators have had to bear the rising costs of health insurance while their wages have failed to keep up.

ESPs face an even more difficult benefit gap in certain parts of the state. In some places, ESPs work solely for health insurance benefits. Some of these educators take home paychecks for a single dollar because all of their wages cover health insurance premiums. The winter of 2018-2019 has also produced a new financial burden for some ESPs. Minnesota districts have cancelled several days of school because of crippling winter weather. Most ESPs have to use personal or sick days to receive any wages on these days. However, some ESPs have exhausted their allotted personal days and now owe their employing district money to cover their missed wages that would have covered their health insurance premiums. These educators are literally paying to work.

According to the collective bargaining agreements in place, in 18 of Minnesota's school districts, the employee cost for family coverage is between \$1,500 and \$2,000 per month. The employee cost for family coverage is between \$1,000 and \$1,499 per month in 101 districts, and the employee costs for family coverage is between \$500 and \$1,000 per month in 195 districts. Educators cannot afford these costs on the salaries they are provided by their Local Education Agencies (LEAs).

Student Loan Debt Further Strains Educators

Minnesota's educators are also balancing low wages with "substantial debt incurred through education loans" (Rude & Miller, 2018, p. 27). This is very daunting for educators who are "starting a career with significant educational loan debt and an initial salary that is well below what other professionals will be earning through an entry-level position" (Rude & Miller, 2018, p. 27). In addition, the systems for obtaining, repaying, and forgiving student loans are incredibly complicated. Friedman (2018) has described the educator student loan options as

A patchwork of overlapping programs, contradictory regulations, and expensive subsidies that date back to...the National Defense Education Act of 1958. This 60-year experiment in using federal loan dollars to encourage students to become teachers could be poised for change as Congress considers reauthorizing the Higher Education Act.

Minnesota's educators carry large debts that

they may never be able to repay.

Friedman (2018) also confirmed, "Among undergraduate education majors, some 67 percent borrowed federal student loans–5 percentage points more than the overall population of bachelor's degree recipients." Both the federal and state government continue to scale back loan forgiveness options while the cost of higher education rises. This means Minnesota's educators carry large debts that they may never be able to repay. Minnesota lawmakers should be particularly aware of the following points:

- The Minnesota Office of Higher Education regularly calculates the median student loan debt for Minnesota graduates. Chart 1.1 presents a summary of some of the data from the agency's most recent policy brief on the topic. In the brief, Williams-Wyche (2017) also reported these figures:
 - a. The median cumulative debt for bachelor's degree recipients in Minnesota as of 2016 was \$25,969.
 - b.In 2016, 69% of all Minnesota undergraduates borrowed some money for higher education.
 - c. The majority of Minnesota students are borrowing regardless of the type of institution they attend. Students in the Minnesota State system borrow the most. They even borrow more money than students at private institutions do.
- Friedman (2018) confirmed that Minnesota residents have some of the highest student loan debt totals in the nation. Chart 1.2 presents information on per-student debt totals by state. Friedman (2018) calculated Minnesota to be the state with the fifth highest in perstudent debt totals.
- 3. Delisle (2014) also calculated the combined, average loan debt for students with both a bachelor's and an advanced degree. Chart 1.3 shows that education graduate students accounted for 16% of all students graduating with an advanced degree in 2012, and they carried an average of almost \$51,000 in combined loan debt. However, they will not command the salaries of their peers with law or medical degrees and will struggle to repay these loans. In addition, Chart 1.4 shows that education graduates saw the average monthly payment for their loans rise \$259 between 2004 and 2012. Unfortunately, they did not witness the same rise in their monthly salaries, as we have documented in other sections of this report.

CHART 1.1: CUMULATIVE MEDIAN DEBT FOR MINNESOTA'S BACHELOR'S DEGREE RECIPIENTS, 2014-2016

	TOTAL RECIPIENTS	TOTAL RECIPIENTS WITH LOANS	CUMULATIVE MEDIAN STUDENT LOAN DEBT	PERCENT OF RECIPIENTS WITH LOANS	
	MINNESOTA STATE				
2014	10,615	7,820	\$25,897	74%	
2015	10,845	7,979	\$25,496	74%	
2016	10,786	7,855	\$25,548	73%	
	UNIVERSITY OF MINNESOTA				
2014	10,200	6,631	\$24,278	65%	
2015	10,165	6,474	\$24,567	64%	
2016	10,149	6,190	\$24,135	61%	
PRIVATE NOT-FOR-PROFIT					
2014	11,006	8,052	\$27,635	73%	
2015	10,986	7,968	\$28,391	73%	
2016	10,896	7,821	\$26,921	72%	

*Figures obtained from (Williams-Wyche, November 2017).

CHART 1.2: STATES WITH HIGHEST PER-STUDENT DEBT TOTALS

New Hampshire	\$36,367	
Pennsylvania	\$35,759	
Connecticut	\$35,494	
Delaware	\$33,838	
Minnesota	\$31,915	

*figures obtained from (Friedman, 2018).

CHART 1.3: COMBINED UNDERGRADUATE AND GRADUATE DEBT (CLASS OF 2012)

	TOTAL LOAN DEBT	SHARE OF GRADUATE DEGREES CONFERRED
Medicine and health sciences	\$161,772	5%
Law	\$140,616	4%
Master of arts	\$ 58,539	8%
Other master's degrees	\$ 55,489	15%
Master of education	\$ 50,879	16%
Master of science	\$ 50,400	18%
Master of business administration	\$ 42,000	11 %

* Figures obtained from (Delisle J. , March 2014, p. 4).

CHART 1.4: CHANGES IN COMBINED LOAN DEBT FOR 2012 GRADUATES WITH MASTER OF EDUCATION

	CLASS OF 2004	CLASS OF 2012
Average total debt (undergraduate and graduate)	\$20,153	\$50,879
Typical monthly payment	\$170	\$429
Share of graduate degrees conferred	18%	16%

*Figures obtained from (Delisle J. , March 2014, p. 6).

These figures should startle all Minnesota lawmakers, and they are proof that the state needs swift action to help relieve the education debt burdens of Minnesota educators.

ESP compensation must also include student loan debt relief.

We also know that many ESPs carry significant student loan burdens. Unfortunately, state and federal agencies do not track these figures as closely. ESP compensation must also include student loan debt relief.

Minnesota can and should do more to relieve

the debt burdens facing educators.

Loan debt is a serious problem, and it can be a difficult topic to conceptualize. We offer Images 1.4, 1.5, and 1.6 as examples of how loan debt causes financial difficulties for Minnesota educators. We based our examples on the average salary for all teachers and ESPs in the state as calculated by the Minnesota Department of Education. We took the other expense figures from the Economic Policy Institute's Family Budget Calculator. In our fictional examples, all three educators make the average salary. In Image 1.4, our fictional teacher has \$32 dollars in monthly income after all other expenses are paid. In Images 1.5 and 1.6 our urban and rural ESPs do not make enough money to cover their expenses. This is unacceptable, and Minnesota can and should do more to relieve the debt burdens facing educators. Finally, we hope policymakers consider the shocking findings from the Massachusetts Community Colleges that teachers and social workers will never be able to repay their loan burdens without state and federal aid. The Massachusetts Community College Guided Pathways to STEM used a grant by the U.S. Department of Labor to research how long it takes people to repay loans by field. Chart 1.5 compares the average repayment time for a sampling of professions.

It is important to remember that this work came from our colleagues in Massachusetts. The researchers derived many of the figures from federal averages, but they based some on average wages in Massachusetts. They also assumed that 10% of the individual's salary every month would go toward loan payments. In their calculations, an individual had no state or federal repayment grants. They also used a very generous interest rate of 6.6%. Policymakers should be shocked that based on these figures, teachers and social workers would never be able to repay their debts without government aid. This problem requires swift government intervention.

FIELD	DEGREE	TOTAL TUITION	LENGTH OF REPAYMENT
Nurse practitioner	Master's degree in nursing	\$64,000	11 years, 1 month
Electrical engineer	Bachelor of science in electrical engineering	\$40,976	7 years, 3 months
Dental hygienist	Associate degree in dental hygiene	\$22,692	5 years, 10 months
Social worker	Bachelor of arts in social work	\$39,880	Impossible *10 years
Teacher	Master of arts in teaching	\$67,488	Impossible * 10 years

CHART 1.5: AVERAGE LOAN REPAYMENT BY CAREER FIELD

* We took these figures from work done by the Massachusetts Community Colleges. Many of these numbers are based on national avergaes, but we also acknowledge that some of the averages are based on Massachusetts. (Massachusetts Community Colleges).

IMAGE 1.4: AVERAGE MINNESOTA TEACHER PAY AND MONTHLY EXPENSES



IMAGE 1.5A: AVERAGE AITKIN COUNTY ESP PAY AND MONTHLY EXPENSES



IMAGE 1.5B: AVERAGE HENNEPIN COUNTY ESP PAY AND MONTHLY EXPENSES



Educators Lack the Basic Resources for Their Classrooms

Educators also accrue many out-of-pocket expenses that other professionals do not face. Minnesota is not only paying educators at lower wages than other college graduates, but policymakers are also turning a blind eye to the fact that an overwhelming majority of public educators provide the basic supplies they need in their classrooms. Researchers at the U.S. Department of Education, National Center for Education Statistics conducted a national survey and found:

- Teachers spend \$479 dollars (on average, some spend more) annually on school supplies for their own classrooms.
- A higher percentage of teachers in traditional public schools (94%) spent their own money on classroom supplies than teachers in public charter schools (88%).
- At schools at which 75% or more students were eligible for free or reduced-price lunch, a higher percentage of teachers spent more than \$1,000. (NCES 2018-097, May 2018)

In addition, ESPs spend their own money to provide supplies for children. Many ESPs tell stories about bringing basic supplies like pencils and paper for students that come to school without enough resources. Unfortunately, administrators sometimes discipline these educators for these acts of kindness.

> Minnesota's policymakers do not buy the pens, tablets, and other supplies needed to run their legislative offices, so they should stop expecting underpaid educators to provide basic supplies needed to educate the students of Minnesota.

Minnesota's policymakers do not buy the pens, tablets, and other supplies needed to run their legislative offices, so they should stop expecting underpaid educators to provide basic supplies needed to educate the students of Minnesota.

Educators Work Multiple Jobs to Earn Equitable Wages

We have documented how state and local governments fail to compensate public educators. However, many of Minnesota's educators show up every day and perform their hard work and then rush to a second or third job after school simply to pay their bills. Researchers with the U.S. Department of Education, National Center for Education Statistics (2018) recently determined:

- 18% of teachers had a job outside their school system. (NCES 2018-137)
- Nationally, regular, full-time public school teachers who supplemented their income earned an average (mean) of \$5,100 from jobs outside their school system. (NCES 2018-137, June 2018)

Policymakers should pay attention to two important facts about these numbers. First, the amount teachers earn in their second or third job is almost the same number as the teacher wage gap we previously discussed. Second, teachers are unable to spend equitable time on course preparations and non-instruction work because they are also laboring in other industries.

In addition, we know that very high numbers of ESPs dash from their school jobs to their night jobs. Again, as we have noted throughout this section, state and federal agencies fail to track this data.

This is not a difficult problem to understand. Minnesota's lawmakers need to fill the wage gap facing educators. Educators are burning out at seriously high rates because they are working 80-hour weeks to provide for their families. Minnesota's educators deserve wages that match their efforts.

Educators are Struggling With Their Mental Health

The above financial problems are not the only compensation and work stressors facing public educators. Many studies have shown that "teaching is regularly cited as one of the most stressful occupations" (Collie, Perry, & Martin, 2017, p. 4). The AFT regularly surveys public educators to report out the quality of their work environments. In the most recent study, the AFT asked 30,000 educators 80 questions about "the quality of their work life" and determined that the public educators face numerous work stressors, many of which policymakers can fix with more resources or simple policy changes (B.A.T., 2017, p. i).

26.4% of teachers reported being the victim of bullying at work.

U.S. teachers face chronic levels of stress at work and are more likely to identify as having "poor mental health" as compared to the average worker. Chart 1.6 compares the responses of educators to the entire U.S. working population on questions related to mental health. All the numbers are startling, but we draw particular attention to the fact that 26.4% of teachers reported being the victim of bullying at work. The adults educating the future citizens of this nation should be able to report to work and not face bullying by a student, parent, or colleague.

	PUBLIC EDUCATORS	ALL EMPLOYED AMERICANS
Reported work is "always" or "often" stressful	61%	30%
Reported being bullied at work	26.4%	7%
Reported "poor mental health" for 11 or more days	21 %	10%
Reported "fair" or "poor" physical health	18%	12.4%

CHART 1.6: MENTAL HEALTH OF EDUCATORS COMPARED TO NATIONAL AVERAGES

* Figures obtained from (Delisle J. , March 2014, p. 4).

Finally, many educators are reaching a point of burnout due to what scholars refer to as "compassion fatigue" or secondary traumatic stress (STS). U.S. public school students are coming to school with unprecedented levels of trauma and adverse childhood experiences. We address the trauma level of the student population in another section of this paper. However, it is important to remember that public school teachers are the individuals tasked with helping students overcome adversity. This emotional labor comes with a personal price, and policymakers need to provide resources to help educators combat work stress.

Many educators are reaching a point of burnout due to what scholars refer to as "compassion fatigue" or secondary traumatic stress (STS).

Fowler (2015) has documented that, "secondary traumatic stress (STS) wears us out– physically, emotionally, and mentally. It's especially prevalent when we feel overwhelmed and work in unsupportive and demanding environments" (p. 31). Unfortunately, social norms expect teachers to be superheroes capable of facing all adversity without any sacrifice to their own mental health. However, Fowler (2015) is quick to remind policymakers "teachers are not immune to human emotions. No smart board or dry erase marker magically protects us from feeling another's pain. STS reactions may seep or crash into our systems" (p. 31). State lawmakers need to provide better benefits and worksite relief to address this growing mental health concern.

Educators of Color Face Tremendous Institutional Stressors

All educators face stressors at work, but Minnesota's educators of color (EOCs) face unique and heightened levels of work stress. Carter Andrews and her colleagues (2019) have noted that stakeholders need to

consider how the narrative that has been constructed regarding the underrepresentation of TOCs in U.S. schools suppresses an explicit examination of and response to how... historical and contemporary legislation and policy create(d) a pushout and keep out process for recruiting and retaining TOCs. (p. 9)

Minnesota's educators of color (EOCs) face unique and heightened levels of work stress.

These scholars correctly argued that "the often toxic environmental and operational conditions for TOCs in their preparation programs and workplaces have negative implications for teacher retention and attrition" (Carter Andrews, et al., 2019, p. 6). EOCs face the same bullying, harassment, and structural stress as their White peers. However, they also have to manage the difficult world of systemic, and overt, racism. In addition, Minnesota is facing a shortage of EOCs, so many of them have to move through this stress in isolation.

Black male and Black female teachers face particularly difficult environments at work. First, research has shown that both categories often face stereotypes about their quality of teaching (Bristol & Goings, 2019; Carter Andrews, et al., 2019; Acosta, 2019). Second, these educators also find themselves caught between impossible expectations that they are capable of playing divergent roles simultaneously. Bristol and Goings (2019) have argued that

previous research on the experiences of Black male educators have found that they are often touted for their ability to serve as disciplinarians, saviors, and role models (Brown, 2012) for "troubled" Black boys (Carey, 2018; Nelson, 2016; Wallace, 2017). Moreover, Black male teachers are rarely recognized for their content knowledge, pedagogical abilities, and ability to teach all children (Bryan & Ford, 2014; Jackson & Knight-Manuel, 2018). (p. 51) Black male educators often face racist questions about their intelligence, and they must navigate the unspoken expectation that they should mentor all the Black male students. These stressors are particularly difficult for Black male teachers who may be the only black male staff member in a building. Any discussion of educator mental health must look at these systemic problems for EOCs.

They also noted, "because of their hypervisibility as well as negative perceptions of their teaching abilities, Black male teachers may enter hostile work environments and encounter colleagues who will both covertly and overtly treat them as social outcasts (Bristol & Goings, 2019, p. 51). Black male educators often face racist questions about their intelligence, and they must navigate the unspoken expectation that they should mentor all the Black male students. These stressors are particularly difficult for Black male teachers who may be the only black male staff member in a building. Any discussion of educator mental health must look at these systemic problems for EOCs.

Many scholars have shown that Black female educators have their academic credentials questioned while being expected to be more nurturing.

Black female educators also face similar systemic barriers and racist stereotypes. Acosta (2019) confirmed that Black women in education face "pedagogical marginalization." Scholars understand this specific social aggression as "the reification of race and gender stereotypes that force Black women to shoulder the burden of proof when it comes to their race and gender status" (Acosta, 2019, p. 26). Many scholars have shown that Black female educators have their academic credentials questioned while being expected to be more nurturing. Scholars have shown that "race and gender microaggressions experienced by effective BWEs is implicated in the significant decrease in African American educators in the profession" (Carter Andrews, et al., 2019, p. 1). Policymakers need to have a serious conversation about the intersection of race and gender stereotypes that are driving women of color away from the profession of teaching.

Educators of color must navigate systemic racism as well as overt aggressions coming from parents, colleagues, students, and administrators. This heavy burden can add to the mental health problems these educators are already carrying.

Educators of color must navigate systemic racism as well as overt aggressions coming from parents, colleagues, students, and administrators. This heavy burden can add to the mental health problems these educators are already carrying. Furthermore, these educators "feel like they have to prove their worth as educators, noting being looked over for job advancements, reduced to disciplinarian roles, and not being respected as subject area experts" (Carter Andrews, et al., 2019, p. 8). Policymakers and administrators need to give significant attention to the systemic racism adding to the stress of EOCs.

Solutions

We have documented the compensation shortfalls and workplace stressors that burden public educators. We now turn our attention to potential solutions to these problems.

SOLUTION #1: PROTECT COLLECTIVE BARGAINING RIGHTS: UNIONS HELP CURB WAGE DISPARITIES

Numerous scholars have documented that teachers feel like they lack voice and influence in their districts and schools. However, unionized teachers see collective action as a tool to influence real change in the education system. In addition, unions are a strong protection against further attacks on educator compensation. Davis and Gould (2015) have documented that

one key factor in the divergence between pay and productivity is the widespread erosion of collective bargaining that has diminished the wages of both union and nonunion workers. In 1945, the share of U.S. workers who were a member of a union reached a high of 33.4 percent. This share then declined—largely after 1979—to 11.1 percent by 2014. (p. 14)

Scholars have also confirmed, "Unions are also important for public-sector workers...publicemployee unions in full collective bargaining states (with agency shop clauses) do raise total compensation to their private sector equivalents" (Davis & Gould, November 2015, p. 15). For these reasons, Minnesota lawmakers should protect the collective bargaining rights of workers. Allegreto and Mishel (2016) documented that, "collective bargaining helps to abate the teacher wage gap. In 2015, teachers not represented by a union had a -25.5 percent wage gap—and the gap was 6 percentage points smaller for unionized teachers" (p. 4).

Additionally, collective bargaining has historically yielded better wages for educators. Allegreto and Mishel (2016) documented that, "collective bargaining helps to abate the teacher wage gap. In 2015, teachers not represented by a union had a -25.5 percent wage gap—and the gap was 6 percentage points smaller for unionized teachers" (p. 4). Graph 1.6 documents how unionization shrinks the pay gap for teachers who collectively bargain their contracts.

Unionization can also help alleviate the added gender-based and race-based pay gaps experienced by some educators. Jabbar et al (2018) described the benefits of unions by writing,

Unions in education historically helped to close gender and race-based wage gaps... By removing unions, there is the risk of introducing more discretion and room for implicit bias in hiring and promotion decisions. In other words, when school and district leaders have more discretion over salary decisions, promotions, and job descriptions, there is more room for subjective decision making, which relies greatly on individuals' inherent racial and gender biases. (Jabbar, Sun, Lemke, & Germain, 2018, p. 773)

Davis and Gould (2015) have also confirmed:

- Unions have been proven to provide women with higher wages and better job quality... Women in unions also experience a smaller gender wage gap than nonunionized women. (p. 14)
- Women in unions also have higher rates of both health insurance coverage and enrollment in retirement plans...unionized women are more likely to have access to a range of paid leave, from paid sick days, vacations, and holidays to paid family and medical leave. (p. 15)
- The decline in unionization is bad not only for women in unions, but for all women, as unions often set higher industry standards and wages that affect nonunionized workers too. When unions are strong, their benefits and protections spread to nonunion workers as well. (p. 15)

Graph 1.7 documents the financial gains unionized female educators have made as compared to female educators not in a union. Policymakers should halt all efforts to break unions or prevent collective bargaining. In addition, we view the exclusion of Tier 1 teachers from the statutory bargaining unit as a union-busting effort on the part of some legislators. We ask policymakers to correct this with future legislation.

GRAPH 1.6: UNIONS HELP CLOSE THE TEACHER PAY GAP

Teachers in a union have a smaller wage gap. Wage gap between public school teachers and similar workers, by union status, 1996–2015



Note: Figure compares weekly wages. Regression-adjusted estimates include controls for age (quartic), education, race/ ethnicity, geographical region, marital status, and gender for the pooled sample. Data are for workers age 18-64 with positive wages (excluding self-employed workers). Union representation is defined as being a union member or being covered by a union contract. Source: Authors' analysis of Current Population Survey Outgoing Rotation Group data. Economic Policy Institute. Graph 1.6 reproduced with permission from Sylvia Allegretto and Lawrence Mishel, The Teacher Pay Gap is Wider Than Ever, Economic Policy Institute and the Center for Wage & Employment Dynamics at the University of California, Berkeley, August 2016 (p. 12).

GRAPH 1.7: UNIONS HELP CLOSE THE TEACHER PAY GAP FOR WOMEN

The wage gap is smaller for female teachers in a union. Wage gap between female public school teachers and similar female workers, by union status, 1996–2015



Note: Figure compares weekly wages. Regression-adjusted estimates include controls for age (quartic), education, race/ ethnicity, geographical region, marital status, and gender for the pooled sample. Data are for workers age 18-64 with positive wages (excluding self-employed workers). Union representation is defined as being a union member or being covered by a union contract. Source: Authors' analysis of Current Population Survey Outgoing Rotation Group data. Economic Policy Institute. Graph 1.7 reproduced with permission from Sylvia Allegretto and Lawrence Mishel, The Teacher Pay Gap is Wider Than Ever, Economic Policy Institute and the Center for Wage & Employment Dynamics at the University of California, Berkeley, August 2016 (p. 13).

SOLUTION #2: INCREASE TEACHER PAY AND IMPROVE BENEFITS

Minnesota needs to raise the wages of ALL educators. Baker, Farrie, and Sciarra (2018) have correctly stated:

A state's ability to attract and retain high quality teachers is a fundamental component of a strong and equitable school system. Because teachers' salaries and benefits make up the bulk of school budgets, a fair school funding system is required to maintain an equitable distribution of high quality teachers in all districts. One of the most important ways that states can ensure that teaching jobs remain desirable in the job market is to provide competitive wages. (p. 23)

They also have stressed that on average, "teachers beginning their careers at age 25 earn about 82% of what non-teachers earn" (Baker, Farrie, & Sciarra, 2018, p. 24).

Minnesota should require all teachers start at a salary that is not below \$50,000.

Minnesota should require all teachers start at a salary that is not below \$50,000. Minnesota could follow the example of Connecticut. Lawmakers in that state, between 1986 and 1991, combated "teacher shortages by increasing teachers' salaries in combination with other strategic initiatives" (Podolsky, Kini, Bishop, & Darling-Hammond, May 2017, p. 23). Podolsky et al. (2017) confirmed, "Connecticut raised minimum teacher salaries to a state-recommended level and provided state equalization aid to incentivize districts to voluntarily raise their salaries to the minimum" (p. 23). State interventions work, and lawmakers should direct money to increase educator wages across the state.

Minnesota should also institute a policy that establishes mandatory sick time, personal leave time, and vacation time for all educators. In addition, districts should be required to pay all educators for their missed time due to inclement weather determinations. It is unfair to force these educators, especially ESPs, to forego wages due to decisions beyond their control.

Minnesota should also institute a policy that establishes mandatory sick time, personal leave time, and vacation time for all educators. In addition, districts should be required to pay all educators for their missed time due to inclement weather determinations. It is unfair to force these educators, especially ESPs, to forego wages due to decisions beyond their control.

SOLUTION #3: OFFER PAID FAMILY LEAVE FOR ALL EDUCATORS

The United States is behind all other nations in the area of paid family leave. The federal government has delegated this responsibility to states and private organizations. Minnesota should become a leader by providing paid family leave for all Minnesota educators. It is unfortunate that "due to this widespread lack of paid family leave, workers have to make difficult choices between their careers and their caregiving responsibilities precisely when they need their paychecks the most, such as following the birth of a child or when they or a loved one falls ill" (Davis & Gould, November 2015, p. 19). Minnesota should provide educators the resources to care for their own families in the same way they care for the children of Minnesota every day.

We also see paid family leave as a measure that would greatly reduce the gender pay gap. We know, "the lack of paid family leave particularly affects women, as they currently take on the lion's share of unpaid care work" (Davis & Gould, November 2015, pp. 19-20). Davis and Gould (2015) have argued that this also adds to the career-wide pay gap many women face. They have stated

because women are still largely expected to take on larger shares of household labor, many women leave the paid labor force to care for loved ones when the need arises, forcing these women to forgo opportunities for career advancement and to end up with lower lifetime earnings (and therefore lower retirement income) than their male peers. (p. 20)

Paid family leave can help fix this problem. Researchers have shown that "when women are supported by a comprehensive paid family leave policy, they are more likely to stay attached to the labor force" (Davis & Gould, November 2015, p. 20). Minnesota should be a national leader on this important issue.

SOLUTION #4: INCREASE EFFORTS TO RELIEVE LOAN DEBT

Minnesota lawmakers need to give critical attention to student loan debt of all educators. In particular, policymakers should:

- Shift funding back to the state's traditional ratio of a higher percentage of funding through state appropriation and reduce the reliance on tuition. Reliance on tuition is now reliance on the acquisition of student loan debt.
- Provide education-funding structures that target those students and communities with the greatest financial need.
- Focus higher education funding on communities with declining populations so that they benefit from sustained investment from the state via our higher education institutions. Higher education institutions are and should be cornerstones of local communities that drive investment and community building, including making Greater Minnesota communities places where people continue to want to live.
- Avoid creating funding structures that pit two-year and four-year colleges against each other. All are a vital part of a higher education structure.
- Make investments in higher education that balance affordability for the state in accordance with other priorities such as equitable funding for K-12 education, transportation, housing, health care, and ending economic disparities.

SOLUTION #5: CHALLENGE SYSTEMIC RACISM WITH CRITICAL PROFESSIONAL DEVELOPMENT

Policymakers need to provide educators with the autonomy to build and support what Kohli (2019) has termed "critical professional development" which is "a development space that frames 'teachers as politically-aware individuals who have a stake in teaching and transforming society'" (pp. 39-40). All educators need constant and continual professional development that helps them dismantle racism and build equitable schools.

SOLUTION#6: TARGETED POLICY INTERVENTIONS

Minnesota lawmakers can address many of the problems listed in this section by:

- 1. Ensuring all ESPs earn an hourly wage that starts at a minimum of \$15 an hour.
- 2. Adding preschool teachers to the teacher bargaining unit, so they receive equitable compensation.
- 3. Allowing Tier 1 teachers to be part of the teacher bargaining unit.
- 4. Reinstating the funding to districts to support lane movement.
- 5. Considering measures to hold administrators accountable for slowing educator attrition.

SOLUTION #7: ADDITIONAL FINANCIAL INCENTIVES FOR EDUCATORS

We offer these items as ideas Minnesota lawmakers can use to target specific problems with immediate fixes, but, these items would be unnecessary if legislators pass legislation to help with solutions 5-6. However, the state could follow the examples documented by Yafee (2016), which include:

- Offering financial incentives for senior faculty to announce retirements at earlier dates. Hoquiam School District in Washington benefited from offering \$2,000 to senior teachers who provided notice of retirement by February 1.
- Subsidizing housing for educators, particularly in places with high costs of living, like what the districts have done for educators in Oakland, California.
- Developing services to help teachers find affordable housing, like Idaho, Mountain View School District #244.
- Funding and creating spousal hire policies, which helps attract families to rural areas.
- Giving money to build more full-service community schools which will alleviate many of the problems we mention in this section.
- Creating signing bonuses that young educators can use for moving expenses (Yafee, 2016).

Concluding Thoughts

Minnesota lawmakers need to provide proper compensation for every educator in this state. This state should lead the way in efforts to eliminate the professional wage gap that burdens educators and their families.
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Teacher Induction and Mentoring: Fund Robust Teacher Induction and Mentorship Programs That Align With Best Practices

The teaching profession has one of the worst attrition rates of any like profession. In Minnesota, roughly one out of every three teachers leaves within the first five years. There is a lot of talk about the Minnesota teacher shortage, but too often, attrition is left out of the conversation, which leaves us with short-sighted conversations, policies, and laws focused on recruitment, as if just getting more people into the field will solve the problem. And while it is true that districts have a harder and harder time finding prepared and fully licensed teachers to fill vacant positions, it is not true that Minnesota has an overall teacher shortage. Instead, teacher shortages vary based on teaching positions, geographic locations, and school types.

In Minnesota, roughly one out of every three teachers leaves within the first five years.

What Minnesota really has is a shortage of teachers who are willing to stay in the profession, given what we have done to the profession. A failure to invest in supporting new teachers is one of the mistakes we have made, but it is also something Minnesota can fix. One of the most immediate ways to address our teacher attrition problem is to invest in robust mentoring and induction for teachers new to the profession and new to a specific district. Fully funding Minnesota's Teacher Development and Evaluation Law, as well as Quality Compensation, or Q-Comp, would provide important support for early career, and all, educators. This would cost between \$162-320 million.

One of the most immediate ways to address our teacher attrition problem is to invest in robust mentoring and induction for teachers new to the profession and new to a specific district. Fully funding Minnesota's Teacher Development and Evaluation Law, as well as Quality Compensation, or Q-Comp, would provide important support for early career, and all, educators. It takes roughly 63,000 licensed educators to fully staff Minnesota's public and charter schools. If we had a real teacher shortage, one might expect that we have fewer than 63,000 licensed teachers. But, in fact we have more than twice that number of already licensed teachers in the state right now. According to the most recent *Teacher Supply and Demand Report*, there are currently 133,945 people with active Minnesota teaching licenses (Wilder Research, 2019, p. 3). That number does not include people who only have a short call substitute license. Because Minnesota once issued something called a lifetime license, it is important to also pay attention to the age of those 133,945 license holders. If we subtract from that number everyone over the age of 60 and roughly 10,000 people for whom no birthdate data is available, we get to 91,500. That is, there are over 91,000 people under the age of 60 who have active Minnesota teaching licenses in at least one specific licensure field.

Minnesota's shortage of teachers of color is one of the worst in the nation.

Minnesota's shortage of teachers of color is one of the worst in the nation. Though our student population is made up of 33.5% students of color (identified as American Indian, Asian, Black, Hispanic, Hawaiian/Pacific Islander, and multiracial), only 4.3% of our teaching workforce is made up of teachers of color (Wilder, 2019, p. 4). The percentage of students of color has been increasing steadily over time. The percentage of teachers of color has not.

Minnesota needs to get serious about increasing the numbers of teachers of color in our teaching workforce, which will mean looking honestly at the structural racism inherent in our current school systems, and it needs to get serious about the teacher attrition problem overall, which is wreaking havoc on our districts and leaving too many students without teachers trained to meet their educational needs.

Ingersoll and May (2011) outlined three reasons often cited for why the mismatch between teachers of color and students of color is detrimental. These include: 1) **Demographic parity.** This argument holds that "minority teachers are important as role models for both minority and White students." 2) **Cultural synchronicity.** This argument "holds that minority students benefit from being taught by minority teachers because minority teachers are more likely to have 'insider knowledge' due to similar life experiences and cultural backgrounds." 3) **Candidates of color.** "This argument holds that candidates of color are more likely than non-minority candidates to seek employment in schools serving predominantly minority student populations, often in low-income, urban school districts," which are the schools that suffer disproportionately from teacher shortages (Ingersoll & May, 2011, p. 11). Achinstein et al. (2010) cited the increasingly large body of research showing that teachers of color "can produce more favorable academic results on standardized test scores, attendance, retention, advanced-level course enrollment, and college-going rates for students of color than White colleagues" (Achinstein et al., 2010, p. 7). Many other scholars "contend that this demographic gap creates a teaching-learning disconnect that contributes to the too-often dismal academic performance, high dropout rates, and low graduation rates of diverse urban students" (Waddell & Ukpokodu, 2012, p. 16).

Burciaga and Kohli (2018), explained further what teachers of color bring to students. They bring "knowledge and skills cultivated by communities of color to resist and survive racism" (Burciaga & Kohli, 2018, p. 6). Minnesota needs to get serious about increasing the numbers of teachers of color in our teaching workforce, which will mean looking honestly at the structural racism inherent in our current school systems, and it needs to get serious about the teacher attrition problem overall, which is wreaking havoc on our districts and leaving too many students without teachers trained to meet their educational needs.

One of the most powerful things Minnesota can do to increase teacher retention and promote best practices in the classroom is fund robust induction and mentoring programs. Induction refers to a process of early-career development for teachers as they navigate their first few years in the classroom or district. Mentoring is just one component of induction.

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Minnesota Statute 122A.70 encourages districts "to develop teacher mentoring programs for teachers new to the profession or district, including teaching residents, teachers of color, teachers with special needs, or experienced teachers in need of peer coaching" (Minn. Stat. § 122A.70). In addition, the new tiered licensing law requires all Tier 1 and Tier 2 teachers to participate in a mentorship program. However, the requirements for a mentorship program as defined in rule are well below anything in line with best practices, chiefly because there is no money to fund programs that do what we know they need to do. A Minnesota teacher's chances of landing in a district with a robust mentoring program that aligns with research-based best practices are slim, and his or her chances of landing in a Minnesota school with a robust induction program that aligns with such practices are even slimmer. We can do a much better job of supporting all teachers in their first several years in the classroom and thereby significantly increase both their effectiveness and the likelihood that they will stay in the profession. We will also need to be intentional in our efforts to retain greater numbers of teachers of color, as oftentimes, their needs are unique.

Minnesota is not lacking in a vision of what successful induction for educators looks like. Academic research and education stakeholders at both the national and state levels have offered very similar recommendations for Minnesota schools, and the steps to building these programs are not overly complex.

In 2009, a coalition of education stakeholders in Minnesota worked to develop the *Minnesota Educator Induction Guidelines* (Teacher Support Partnership, 2009). The Teacher Support Partnership was made up of representatives from the College of Education and Human Development at the University of Minnesota, Education Minnesota, the Minnesota Department of Education, and Minnesota State Colleges and Universities. Their recommendations about how to build strong induction programs for Minnesota's educators remain timely today, and we discuss them in detail below.

Since then, other important voices have added to the ongoing conversation about the importance of educator induction in the greater landscape of education equity and teacher retention. The New Teacher Center is a national nonprofit organization committed to helping states, districts, and schools better support their teachers in the early years of their careers. The New Teacher Center's recommendations for strong educator induction programs are quite similar to the recommendations of the Teacher Support Partnership (The New Teacher Center, 2016). Numerous academic studies and literature reviews on the characteristics of effective education induction also help point the way toward a better system for Minnesota's teachers, and, ultimately, our students.

Districts are starved for the necessary funds to provide some of the most fundamental elements of effective induction programs.

While most Minnesota school districts report having some type of induction program, few have the resources needed to make those programs as effective as they could easily be if they were funded and if MDE provided some basic resources. One out of every three teachers in Minnesota leaves within the first five years of starting, and many of them cite lack of support as one of the primary reasons they leave (Educator Policy Innovation Center, 2016). In a survey conducted by the American Federation of Teachers of more than 30,000 teachers nationwide, 89% of the respondents reported being enthusiastic about their profession at the start of their careers. Only 15% sustained that enthusiasm as their careers progressed (Educator Policy Innovation Center, 2016, p. 12). This should not be a surprise. Districts are starved for the necessary funds to provide some of the most fundamental elements of effective induction programs.

Minnesota pays dearly for failing to support new teachers. The money saved by districts when they are not having to constantly recruit, hire, and train new teachers after relatively new teachers leave is no small matter. And the consequences of such high teacher attrition rates for students include a disruption of academic and extracurricular programming from year to year, and, for students living with high levels of toxic stress due to trauma, the consequences of schools that have a revolving door of teachers leaving and new teachers coming can be devastating.

Minnesota Needs Robust Teacher Induction Systems

As mentioned above, induction is broader than the mentor-mentee relationship. Induction should be a coherent, intentional, and sustained process, and support for this process needs to be owned by the entire school community, including administrators, "the teaching faculty, licensed school professionals who provide pupil services, and support personnel" (Teacher Support Partnership, 2009, p. 10).

The elements of a comprehensive induction system include administrative support, multiple and varied opportunities for professional learning, and mentoring. Though every extant induction program is distinct, research leads to an overwhelmingly common conclusion: induction programs that lead to ongoing, collaborative relationships make a difference. Induction programs that fail to reach this standard do not make any measurable difference in teacher attrition rates.

PROVIDE THE RESOURCES SO EDUCATORS CAN BUILD A SCHOOL CULTURE BASED ON COLLABORATION

Building an induction program that leads to ongoing, collaborative relationships should, therefore, be one of the primary goals that districts and educators keep in mind as they develop their programs, and such a goal should be at the center of state-level policy and/ or statute on the issue. School culture has a lot to do with how easily induction programs can reach this standard, as some schools are deeply entrenched in an individual, isolated teacher model, while others have long since moved away from that more traditional structure and are already more collaborative professional spaces wherein ideas, best practices, mistakes, learnings, and new projects are readily shared and supported.

Cara Iselin, a teacher in Robbinsdale, explained that the best mentoring and induction programs are housed within schools that develop and nurture a schoolwide culture of mentoring, wherein collaboration and growth are not only possible, but are expected for all faculty. Offer release time, especially for newer teachers and mentors, but also for newer teachers to meet with each other, to consult with related service providers, to consult across special education/general education boundaries.

Another of the most fundamental obstacles to creating induction programs that reach the standard of creating ongoing, collaborative relationships has to do with funding. When mentors don't have time to meet with mentees, don't have access to training, don't have time to observe mentees, and when newer teachers don't have time to observe mentors and other teachers, don't have time to have consultation meetings with school counselors, school psychologists, speech-language pathologists, school social workers, don't have time to meet with one another, don't have access to training, and when districts have no money to make such time available, and when general education teachers don't have time to sit down and consult with special education teachers and vice versa, it becomes very difficult to ensure that any of these relationships—between mentor and mentees, among newer teachers, and among teaching and support faculty at large—will be truly collaborative. The Teacher Support Partnership offers the following examples of collaboration built into induction programs:

- Regional education centers for specialized programming
- Networks of teachers within and across districts (face-to-face and/or online)
- Professional development school partnerships with teacher preparation programs
- Content area specialist collaborations
- Cohorts of educators in graduate courses in higher education
- Institutes and conferences with professional organizations (staff development organizations, subject area professional organizations)
- Online induction systems that stretch across several school districts

"State policy should encourage programs to provide release time for teacher mentors and dedicated mentor-new teacher contact time."

The New Teacher Center, whose mission is to "accelerate teacher effectiveness," outlined nine criteria for robust and effective induction programs. One of those recommendations is that "state policy should encourage programs to provide release time for teacher mentors and dedicated mentor-new teacher contact time" (The New Teacher Center, 2016).

Teachers of color, who represent only 4.3% of Minnesota's teaching force, often cite a lack of autonomy, a lack of administrative support, and a lack of any significant role in decision making in discussing their reasons for leaving the profession or considering leaving the profession.

When we talk about the importance of collaboration in the context of a school's induction program, it should be noted that this means the sharing of ideas is a two-way street. In the most collaborative schools, new teachers feel they have a place at the table, that their ideas are respected and desired, and mentors and administrators report feeling as if their relationship with new teachers is furthering their own professional development. Teachers of color, who represent only 4.3% of Minnesota's teaching force, often cite a lack of autonomy, a lack of administrative support, and a lack of any significant role in decision making in discussing their reasons for leaving the profession or considering leaving the profession (Educator Policy Innovation Center, 2016, p. 43).

When new teachers come to schools fresh from training in teacher preparation programs and armed with new ideas and a motivation to make a difference in the lives of students, and find themselves in schools with no interest in those ideas or in changing old practices to better align with best practices, new teacher enthusiasm drops dramatically, as does the school's teacher retention rate. This is true for all teachers, but it is especially true for teachers of color (Educator Policy Innovation Center, 2016, p. 43).

PROVIDE SUPPORTS FOR REGULARLY OCCURRING MEETING TIME FOR NEW TEACHERS

Often, teachers in their first five years in the profession or their first few years in a new district say that time to meet with other similarly situated teachers provides tremendous value. One way to accomplish this within the existing framework in Minnesota schools is to offer newer teachers the opportunity to participate in a professional learning community, or PLC, that is specifically designated for them and which is tasked with identifying needs, offering mutual collaboration and support, and learning from one another.

RECOGNIZE THE ROLE OF ADMINISTRATORS IN INDUCTION

Principals and other administrators play an important role in effective induction programs. First, principals and other administrators have a great deal of control over whether a school culture is collaborative or not. In schools where teachers are afraid to make mistakes, take risks, or ask questions, of course, collaboration is never going to flourish. As McCormack and Thomas (2003) pointed out, "the satisfaction levels for induction programs expressed by beginning teachers demonstrated that strong leadership from the principal, a whole school approach to learning and teaching with clear goals and expectations, small class sizes, and the opportunity for professional growth were among the factors that contributed to this sense of satisfaction. In addition, the relationship between principals and new teachers is also important for the success of any school's induction program" (McCormack & Thomas, 2003, p. 15).

Furthermore, first-year teachers reported a greater sense of feeling supported by administration when their interactions with principals are focused on student learning: "First-year teachers, who were in schools where the socialization by, and interactions with, the principal, focused on student learning, teaching practice, and fostering relationships" encountered fewer problems and increased teacher retention. Conversely, "more problems were encountered by first-year teachers in schools where socialization focused on administrative elements, school routines, and requirements" (Tillman, 2005). Teachers often cite a lack of support from administration both as a reason for leaving particular schools and as a reason for leaving teaching altogether (Educator Policy Innovation Center, 2016, p. 29).

Teachers of color often cite racial isolation as among the top reasons for leaving or considering leaving the profession.

CREATE AND SUPPORT AFFINITY GROUPS FOR TEACHERS OF COLOR, EVEN IF THIS MEANS CROSSING DISTRICT LINES

Minnesota employs so few teachers of color, that in some parts of the state, there are only one or two teachers of color in a district, or even in an entire region. Teachers of color often cite racial isolation as among the top reasons for leaving or considering leaving the profession. When teachers of color talk about racial isolation, they are talking about a problem that prevents them from developing collaborative relationships and that prevents them from being able to contribute meaningfully to district wide decisions regarding issues as critical as curriculum design and student behavior. Achinstein et al. (2010) explained:

The empathy of teachers of color for students of color, which was reported to be rooted in a common experience, resulted in teachers feeling isolated, having few colleagues with whom they shared the same orientation toward students, and being excluded from certain professional and social encounters that could foster a sense of belonging, help their teaching, and affect organizational decision making. (Achinstein et al., 2010)

"True community can go a long way toward making it easier for teachers of color to stay. It can be hard to be the only person of color in the room."

Teachers of color "are often silenced, pedagogically questioned, not chosen for leadership opportuntities, and viewed as less competent than their White peers, even in schools service majority student of color populations" (Kohli, 2016). Education Minnesota's Teachers of Color Recruitment and Retention Survey (2015) also confirmed these findings. More than 69% of members who completed the survey indicated that racial isolation is either very important or important to their consideration of leaving the classroom (Education Minnesota, 2015). One respondent wrote, "having a support group for teachers of color is what made me come back this year after a terrible year." Another wrote, "true community can go a long way toward making it easier for teachers of color to stay. It can be hard to be the only person of color in the room" (Education Minnesota, 2015).

Minnesota Needs Teacher Mentoring Systems Rooted in Best Practices

One of the most critical components of a successful induction program is the mentor-mentee relationship. In Minnesota, rule requires mentoring for Tier 1 and Tier 2 teachers, and, as mentioned above, statute "encourages" districts to develop mentoring programs. The state provides no money to districts to do any of it, much less develop programs aligned with best practice. It is time to make best practice the norm in Minnesota.

DEVELOP PROCESSES TO PROPERLY MATCH MENTORS AND MENTEES

Almost all of the academic and policy organization recommendations on building effective mentoring programs point to the importance of taking care in making the mentor-mentee match. The New Teacher Center recommended that "state policy should require a rigorous mentor selection process" (The New Teacher Center, 2016). Piggot-Irvine et al. (2009) concluded that making a good match is a critical component of the respected induction programs they studied, and that in the best programs, administrators considered teaching areas, personalities, mentor experience, teaching context, proximity, and (in some cases) the wishes of the beginning teacher (Long, et al., 2012, February, p. 11). One study showed that making sure the mentor-mentee match reflected the same grade level was actually predictive of teacher retention results (Parker, 2009, p. 11).

The Minnesota Educator Induction Guidelines recommend the following criteria for mentor selection:

Instructional Skills

- Completed five or more years of successful teaching
- Demonstrates solid content knowledge
- Considers diverse student needs to personalize and differentiate instruction to promote achievement for all students
- Creates and manages a productive classroom learning environment
- Demonstrates a broad repertoire of instructional practices
- Assesses student learning and modifies instruction to meet student needs

Mentoring Knowledge and Skills

- Understands beginning teacher development and adult learning theory
- Knows how to analyze instruction based on criteria of professional teaching standards
- Understands the reciprocal relationships among educational theory, research, and practice
- Uses an inquiry approach for problem solving
- Uses a continuous improvement, professional growth model

Personal and Professional Dispositions

- Communicates openly, honestly, and sensitively with students, staff, and parents
- Encourages and nurtures an appreciation of diversity
- Is friendly, approachable, and accessible
- Is enthusiastic and optimistic
- Is dependable and trustworthy
- Demonstrates a patient, helpful, and caring attitude
- Models reflective practices
- Demonstrates commitment to own professional growth and learning
- Fund release time for mentors and mentees (Teacher Support Partnership, 2009, pp. 34-35)

As mentioned above, ideal mentoring relationships are based on mutual collaboration and growth. The best mentors approach the role and the relationship with a desire to learn, to gain new perspectives, and to develop their own teaching. Curiosity and humility are important characteristics for a successful mentor.

PROVIDE FUNDING FOR DISTRICTS TO ALLOW FOR RELEASE TIME FOR MENTORS AND MENTEES

Long, et al. (2012) reviewed extant academic literature on teacher induction and mentoring, and they pointed out what our own teachers and administrators tell us whenever they are asked about why their mentoring programs are not more robust:

One difficulty around [induction] is time. Both mentors and mentees felt limited and frustrated by the lack of time for meeting, discussion, and relationship development (Long, et al., 2012, February, p. 12)

The findings Long et al. refer to can be found in Beutel & Spooner-Lane, 2009 and Piggot-Irvine et al., 2009. The New Teacher Center recommended that state policy "should encourage programs to provide release time for teacher mentors and dedicated mentor-new teacher contact time" (The New Teacher Center, 2016). The importance of time for a meaningful mentor-mentee relationship should not be surprising, especially when we examine what successful mentoring relationships entail. Minnesota rules for the mentoring programs required for Tier 1 and Tier 2 teachers require: 1) a year-long collaborative relationship; 2) a mentor who has access to training or resources and who develops common expectations for the mentorship experience and encourages the mentee to select areas for growth over the course of the year; and 3) no less than one meeting per month. Furthermore, those meetings must include discussion of effective strategies to engage students, classroom management strategies that reflect and understanding of the stages of childhood development, the educational rights of students and their diverse needs and experiences, school policies and practices, and using student data to improve teaching and learning (PELSB, 2018, pp. 2-3).

Creative and careful matching between mentors and mentees should be based at least in part on the needs of the new teacher.

That list alone is a lot to accomplish in any meaningful way in nine one-hour meetings. But we know from academic research that effective mentoring relationships for new teachers do far more than what is currently required in Minnesota rule. The New Teacher Center recommended that state policy require regular observation of new teachers by mentors, the provision of instructional feedback based on those observations, and opportunities for new teachers to observe experienced teacher's classrooms" (The New Teacher Center, 2016). Without release time for mentors and mentees, classroom observations become impossible.

In Minnesota, because our teachers of color are so few and therefore so isolated, taking the time to find mentor-mentee relationships between new and experienced teachers of color can make a tremendous difference, even if this means finding ways to cross district lines (Educator Policy Innovation Center, 2016). Creative and careful matching between mentors and mentees should be based at least in part on the needs of the new teacher.

An effective mentor is collaborative, both teaching and learning along with the mentee, and that mentor provides instruction, emotional, social, and psychological support to his or her mentee.

A review of academic literature paints an even more robust picture for what funding can do to create more helpful, long-lasting relationships that will both improve instructional practice and improve teacher retention. Long et al., pointed to a deep well of research that concludes that an effective mentor is more than just an instructor on a finite number of topics. Rather, an effective mentor is collaborative, both teaching and learning along with the mentee, and that mentor provides instruction, emotional, social, and psychological support to his or her mentee (Long, et al., 2012, February, p. 11). Young and Cates (2010) found in their study that having a mentor trained in empathetic listening helped beginning teachers manage tension (Young & Cates, 2010, p. 10).

According to the Learning Policy Institute, the average cost to a school that has to hire a new teacher is \$20,000 (Learning Policy Institute, 2018). Given that one out of every three new teachers in Minnesota leaves the classroom in the first five years, Minnesota districts are spending millions of dollars on the problem of high teacher turnover.

The costs of investing in high-quality induction and mentoring programs are dwarfed by the amount of money Minnesota districts are already spending on the constant process of recruiting and hiring new teachers as current teachers continue to leave at such alarming rates. According to the Learning Policy Institute, the average cost to a school that has to hire a new teacher is \$20,000 (Learning Policy Institute, 2018). Given that one out of every three new teachers in Minnesota leaves the classroom in the first five years, Minnesota districts are spending millions of dollars on the problem of high teacher turnover. In the 2017-18 school year, 2,392 teachers were new graduates of teacher preparation programs, both from Minnesota and from other states. If one third of those teachers leave in their first five years, Minnesota districts will be looking to refill 789 positions. At an estimated cost of \$20,000 per new hire, that's \$15,787,200 spent on teacher turnover in just five years. And that figure doesn't take into account hiring behind retirees or hiring behind people who left at any other point during their careers.

And the costs are not merely financial. There are also instructional and academic costs to high levels of teacher turnover. High levels of teacher turnover "in a particular school may have adverse impacts on outcomes for the school's students. Student outcomes will be adversely affected, for example, if turnover leads to a lower quality mix of teachers, loss of coherence within the school's educational program, or the inability of the school to replace all the teachers who leave" (Sorensen & Ladd, 2018, p. 1). A recent study that looked closely at how schools respond to teacher turnover exposes part of what is at stake:

A school may respond to the loss of teachers in a particular year or subject by increasing class sizes, either as a chosen strategy or because of its inability to hire replacement teachers, either from within the school or outside the school. If the replacement teachers are more qualified than the ones they replace either in terms of instructional effectiveness or their ability to work with others toward the institutional mission of the school or both, the change could be beneficial for students. In contrast, if the replacement teachers are less qualified than the ones they replace along either or both dimensions, the change will be detrimental to student outcomes and to the smooth operation of the school. (Sorensen & Ladd, 2018, p. 3)

Sorensen and Ladd explained further:

We consistently find that the loss of math or ELA teachers at the school level leads to larger shares of such teachers with limited experience or who are lateral entrants or have provisional licenses. We find suggestive evidence that turnover also leads to higher shares of teachers that are not certified in the specified subject, and of teachers with lower average licensure test scores. All four of these characteristics typically signify less effectiveness in the classroom, and may signify a lower ability to contribute to the coherence of the school's mission. Greater shares of the teachers with these characteristics may also contribute to higher future turnover rates, given that departure rates for members of these categories of teachers tend to be high. Moreover, we find that the adverse effects of turnover rise linearly with the rate of turnover and are higher in high poverty schools and higher in period of student enrollment growth. (Sorensen & Ladd, 2018, pp. 3-4)

Overall, high rates of teacher turnover are costly in terms of their impacts on instruction and academic achievement, in addition to the financial burden they impose on the system.

Lastly, the costs of failing to address both the low number of teachers of color in the workforce and the high rate at which they leave the profession costs our state dearly, in that teachers of color have the greatest potential to recognize and address education inequities.

Clearly, there is much work to do if Minnesota is serious about inducting teachers into the profession in ways that are designed to promote student achievement and increase teacher retention.

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Infrastructure: The Physical State of Minnesota's Schools

Every school day, nearly 50 million K-12 students and six million adults occupy close to 100,000 public school buildings on an estimated two million acres of land. The nation continues to underinvest in school facilities, leaving an estimated \$38 billion annual gap. As a result, 24% of public school buildings were rated as being in fair or poor condition. (American Society of Civil Engineers, 2017)

The physical state of public school buildings, in both Minnesota and the nation, are inadequate. Experts with the American Society of Civil Engineers (ASCE) (2017) have noted:

Every school day, nearly 50 million K-12 students and six million adults occupy close to 100,000 public school buildings on an estimated two million acres of land. The nation continues to underinvest in school facilities, leaving an estimated \$38 billion annual gap. As a result, 24% of public school buildings were rated as being in fair or poor condition. While there have been a number of insightful reports in recent years, state and local governments are plagued by a lack of comprehensive data on public school infrastructure as they seek to fund, plan, construct, and maintain quality school facilities. (American Society of Civil Engineers, 2017)

Most corporations and government agencies have adapted and updated their buildings to protect workers. New laws have protected homeowners and those looking to buy homes from environmental poison. Yet, despite these efforts, lawmakers still allow schoolchildren and educators to work in sub-par buildings that are toxic, uninviting, and dangerous.

Scientists have confirmed that the climate is changing at a rapid pace. Modern advancements are introducing humans to new pathogens and carcinogens, and medical researchers have shown that some building materials of the past lead to health problems later in life. Thus, Minnesota lawmakers need to provide local districts with the funding needed to respond to these new realities. It is time to construct new buildings, and retrofit existing structures, in accordance with best practices.

We support the efforts of researchers at the Centers for Disease Control and Prevention who have developed a framework for school health promotion, known as the Whole School, Whole Community, Whole Child (WSCC) model. Scholars have proven that "a healthy and safe physical school environment promotes learning by ensuring the health and safety of students and staff" (Centers for Disease Control, 2015, August 19). We believe that all students and educators deserve school facilities that are clean and safe. As we talk about infrastructure in this section, we follow the CDC's definition. For us, infrastructure refers to

the school building and its contents, the land on which the school is located, and the area surrounding it. A healthy school environment will address a school's physical condition during normal operation as well as during renovation (e.g., ventilation, moisture, temperature, noise, and natural and artificial lighting), and protect occupants from physical threats (e.g., crime, violence, traffic, and injuries) and biological and chemical agents in the air, water, or soil as well as those purposefully brought into the school (e.g., pollution, mold, hazardous materials, pesticides, and cleaning agents). (Centers for Disease Control, 2015, August 19)

It is time lawmakers provide the funds, so all Minnesota students learn in places that meet these standards.

Minnesota has burdened local education agencies by providing inadequate funding for school infrastructure. This has led to some Minnesota students attending school in buildings that may be unhealthy, unsafe, and unwelcoming.

Minnesota has burdened local education agencies (LEAs) by providing inadequate funding for school infrastructure. This has led to some Minnesota students attending school in buildings that may be unhealthy, unsafe, and unwelcoming. Currently, local education agencies receive very little funding from the state and federal government that can be used to build schools and other needed infrastructure. LEAs are also responsible for maintenance and upkeep of buildings, which further strains budgets and often leads to difficult decisions by administrators. LEAs do have the ability to use bonds and levies to increase revenue for capital expenses. However, LEAs in more affluent areas of the state have a much easier time passing these increased property taxes than LEAs in poorer parts of the state (although this is the not the case for all affluent LEAs). Some districts have not been able to successfully pass a bond or levy for capital improvement in over a decade. We will cite the work of organizations, like Schools for Equity in Education, in this section that have drawn public attention to this problem. We believe that the legislature could address many of the problems in this section by restoring the general education levy.

In addition, we draw attention to the fact that the 2018 legislative session delivered a onetime, wholly inadequate allotment of \$25 million to the Minnesota Department of Education for school capital improvements related to safety. Districts submitted applications for onetime grants to improve the quality of their buildings and classrooms. MDE received several applications that totaled approximately \$250 million – 10 times the amount allotted. Minnesota's LEAs are struggling to balance personnel and curricular costs with capital expenses. It is time for state lawmakers to help Minnesota LEAs build safe and clean school structures for all students and educators. In this section, we address the infrastructure needs in Minnesota by covering the following topics:

- Reasons to act on infrastructure
- The state of public school buildings and areas of concern
- National trends in school infrastructure funding
- Problems with Minnesota's funding of school infrastructure
- Equity concerns tied to school infrastructure
- Minnesota's infrastructure funding shortfalls
- Potential solutions for Minnesota policymakers

Reasons to Act on Infrastructure

We invite all policymakers reading this document to stop and reflect on the following questions:

- Do you have air conditioning at work for the days when outside temperatures are above 90 degrees?
- 2. Does your work building contain dangerous chemicals that can lead to lifelong chronic illnesses?
- 3. Do you work alongside mice, rats, and other disease carrying rodents?

Minnesota's students and educators are worthy of clean and safe buildings. We invite all policymakers reading this document to stop and reflect on the following questions:

- Do you have air conditioning at work for the days when outside temperatures are above 90 degrees?
- 2. Does your work building contain dangerous chemicals that can lead to lifelong chronic illnesses?
- 3. Do you work alongside mice, rats, and other disease carrying rodents?

We predict that most policymakers answered no to all of these questions. Unfortunately, the students and educators of Minnesota are not as lucky. Many children suffer through sweltering heat cycles while trying to learn difficult subject matter. Education support professionals must work to prevent rodents from overtaking many classrooms. Moreover, many educators have worked in "sick buildings" throughout their careers and this has led to chronic illnesses. It is time for this to stop.

"Children are not little adults. They have unique needs, sensitivities, and vulnerabilities, and it is becoming increasingly evident that current school building conditions may not be sufficiently protective of our students' developing bodies and minds."

We agree with the researchers at the Harvard T.H. Chan School of Public Health who have argued:

Children are not little adults. They have unique needs, sensitivities, and vulnerabilities, and it is becoming increasingly evident that current school building conditions may not be sufficiently protective of our students' developing bodies and minds. A large body of research has demonstrated that the school building influences their success as much as any other factor. Now it is time to act on behalf of our children and teachers, who deserve to develop, learn, and thrive in a healthy environment that optimizes their potential to succeed. (Healthy Buildings Program)

In addition, Baker and Bernstein (2017) have proven that researchers have developed the technologies to improve school quality. They have confirmed:

- We know how to build classrooms that minimize background noise and allow voices to be heard clearly, which will allow students to hear their teachers and protect their aural health.
- 2. We have clear evidence that certain aspects of school buildings have an impact on student health and learning, such as:
 - a. When deprived of natural light, studies have shown that children's melatonin cycles are disrupted, thus likely having an impact on their alertness during school (Figueiro & Rea, 2010).
 - Teachers report higher levels of comfort in their classrooms when they have access to thermal controls like thermostats or operable windows (Heschong, 2003, and Lackney, 2001).
- According to researchers at Lawrence Berkeley National Laboratories, when ventilation rates are at or below minimum standards (roughly 15 cfm per student), an associated decrease of 5–10% occurs in certain aspects of student performance on tests. (Baker & Bernstein, 2017, p. 1)

Minnesota lawmakers should make infrastructure improvements because the protection of children and educators at school is a fundamental responsibility of the government. However, researchers have also produced a list of other connections between student learning, educator success, and physical space. Researchers with the American Society of Civil Engineers have recently documented that:

- 1. A comprehensive report in 2006...showed that teacher quality and retention can be influenced by the teacher's environment, which in this case refers to multiple factors—indoor environmental quality, administrative support, supplies, etc.
- Buckley, et al. found that the quality of facilities had a "substantively important effect on teacher retention," even when statistically controlling for other potential factors like pay, parent and community involvement, age of the teacher, etc. (Buckley, et al., 2005). In fact, researchers found that facility quality showed a greater predictive ability on teacher retention than teacher pay for this group of study participants. (Baker & Bernstein, 2017, p. 24)

Lawmakers can stop educator attrition, in part, by

building more sustainable workplaces.

Minnesota lawmakers can update school infrastructure as one way to ensure the success of students and educators. Walker (2018) has made the important observation that

Education is labor intensive, and ultimately the success of any reforms must be built on a high quality and satisfied workforce that is given adequate tools for meeting the new challenges and standards of education. As the need for more highly qualified teachers becomes central to the nation's educational reform agenda, we are asking schools to attract, retain and train the kinds of teachers that children need, while asking these highly educated professionals to work in inadequate working environments that can literally be dangerous to their health. (p. 22)

Walker also confirmed that researchers know "poor facilities contribute to the high turnover rates endemic to central urban school districts" (Walker, 2018, p. 22). Lawmakers can stop educator attrition, in part, by building more sustainable workplaces.

In addition, the state will derive many other benefits from improving physical structures. First, Ciolino (2016) cited "improved graduation rates, increased lifetime earnings of the next generation, and increased property value" as three compelling reasons to fund structural improvements (p. 113). Second, Filardo (2016) has argued that, "investing in public school infrastructure increases the value of property beyond the amounts borrowed, boosts enrollments, and helps rebuild confidence in a formerly struggling district or school" (p. 7). Finally, scholars have confirmed, "the most immediate gain to be realized via a large-scale public school facility program is increased employment" (Ciolino, 2016, p. 113). Ciolino (2016) documented one estimation that

each one billion dollars invested in building or renovating schools will create between 9,000 and 10,000 jobs. Therefore, an aggressive school renovation program has the potential to put many Americans back to work while improving the quality of life and education for our nation's young people. (p. 113)

Minnesota will also reap economic benefits by providing the funds needed to modernize school structures.

Finally, Minnesota lawmakers must remember, "In many instances school buildings also serve communities as emergency shelters during man-made or natural disasters" (American Society of Civil Engineers, 2017). School buildings are the largest structures to house many people in some communities. Lawmakers should remember this "secondary function" of schools and update school buildings because they play "a significant role in public health, safety, and welfare" (American Society of Civil Engineers, 2017). This means many schools will need "windows that can withstand high winds, structures designed to survive earthquakes, and rooms specifically designed as shelters from tornados" (American Society of Civil Engineers, 2017). Lawmakers will be failing many rural communities if they fail to act.

The State of Public School Buildings and Areas of Concern

We did it! We topped 100° in my #CHCougars classroom. I'm not sweating anymore. I'm light headed. I have a headache. All the classic signs of heat exhaustion. Imagine what my pregnant & nursing colleagues are going through & of course my students, esp, those observing #Ramadan, 2:28 PM - May 29, 2018 (as cited by Walker, 2018).

Civil engineers and architects have confirmed that public schools in the United States are not meeting the needs of students and educators. Minnesota is witnessing the effects of climate change, as summers grow longer and hotter. This means what were once "cool months" like May and September will have days in the high 90°F range. Last spring, a teacher in St. Paul, Mark J. Westpfahl, made national news when he tweeted:

We did it! We topped 100° in my #CHCougars classroom. I'm not sweating anymore. I'm light headed. I have a headache. All the classic signs of heat exhaustion. Imagine what my pregnant & nursing colleagues are going through & of course my students, esp, those observing #Ramadan, 2:28 PM - May 29, 2018 (as cited by Walker, 2018).

Walker (2018) reported that Westpfahl went on to describe how he used box fans and bottled water to help his students cope and refocus on their academic work. Clearly, Minnesota schools are not retrofitted for modern needs.

Researchers at the ACSE (2017) have confirmed, "Recent government statistics show that a significant numbers of public school facilities are not in acceptable condition. Among public schools with permanent buildings –99% of public schools – almost a quarter (24%) were rated as being in 'fair' or 'poor' condition" (American Society of Civil Engineers, 2017). In addition, these reports fail to account for the fact that "31 percent of schools have temporary buildings, either in addition to or instead of permanent buildings." (American Society of Civil Engineers, 2017). The ASCE (2017) has argued that:

- 1. In more than 30% of public school facilities, windows, plumbing, and HVAC systems are considered in "fair" or "poor" condition.
- 2. Outdoor facilities such as parking lots, bus lanes, drop-off areas, fencing, athletic fields, and sidewalks are also problematic.

- 3. Thirty-six percent of school parking lots are in "fair" or "poor" condition, as well as 32% of bus lanes, 31% of athletic facilities, and 27% of playgrounds.
- 4. More than half (53%) of public schools need to make investments for repairs, renovations, and modernizations to be considered to be in "good" condition.
- 5. Four in 10 public schools currently do not have a long-term educational facilities plan in place to address operations and maintenance.

It is safe to say that the public school infrastructure in the United States is not meeting the needs of educators or students.

The statistics do not improve when shifting to Minnesota's public school infrastructure. The Minnesota section of the ASCE gives the state an overall grade of C (on a traditional A-F academic scale) for statewide infrastructure quality. They also predict that the state faces an \$818 million gap in school capital expenditures. Minnesota is only providing an "adequate" infrastructure system and is not giving enough attention to aging structures. In their report, the researchers do not systematically analyze all public school buildings, but they do draw attention to concerning facts that affect the quality of school infrastructure.

For example, the MnASCE experts have confirmed "approximately 79% of Minnesota residents are served by community water systems," but the same experts gave the water structures in the state a grade of C- (Minnesota Section of the American Society of Civil Engineers, 2018). These same systems feed into the school buildings where teachers and students spend their days. We know state infrastructure is aging, and lawmakers should provide the funds to rebuild and sustain Minnesota's public works.

The buildings and classrooms in which educators work and students learn are deteriorating at alarming rates, but the federal government is doing less to help states and LEAs curb this problem.

The physical infrastructure for U.S. public schools do not meet the needs of students. The buildings and classrooms in which educators work and students learn are deteriorating at alarming rates, but the federal government is doing less to help states and LEAs curb this problem. Ciolino (2016) characterized the size of this problem by writing:

it would take more resources than those allotted to the entire Department of Defense just to modernize America's schools. Furthermore, the facilities' needs estimates could only barely be fully funded using the 2014 federal deficit spending. In other words, school facility financing needs are beyond the fiscal capacity of the federal government. (p. 125)

We provide this national assessment to give perspective on how bad the problem is for Minnesota. We agree with Ciolino's (2016) argument that "although there still are legitimate arguments for maintaining local control over some components of public education, the absence of federal and state funding for local facilities threatens both the quality of the education and the physical health of students in many localities" (p. 111).

School infrastructure is a multifaceted problem that requires consideration of both (1) upkeep of current facilities and (2) new physical space needs to educate students. Mary Filardo (2016), writing for the 21st Century School Fund, National Council on School Facilities, and the Center for Green Schools, offered three important questions that must frame any discussion about school infrastructure. She asked:

- 1. Do states and districts have adequate operating funds for cleaning, maintenance, and repairs to ensure buildings and grounds are healthy and safe?
- 2. Are districts and states investing the capital funds necessary to ensure that their public schools are educationally appropriate, energy efficient, and environmentally responsible?
- Are states and the federal government doing enough to ensure equity in education, so that all students have access to healthy and safe school facilities that support learning? (p. 3)

In regard to infrastructure, Filardo (2016) has estimated the United States faces \$8,467 in long-term debt per student, and Minnesota ranks near the top of states with \$5,962 in long-term debt per student. In sum, the U.S. government and the state of Minnesota are not adequately investing in the long-term infrastructure needs of public schools.

Ciolino and Filardo have both painted a very grim but necessary portrait of this growing problem. At first, it might seem both the federal and state governments have reached a "point of no correction." However, we remain optimistic that innovative technology and new funding streams will provide adequate resources to LEAs. Policymakers cannot remain incalcitrant on this issue and pass funding problems to local agencies. Ciolino (2016) has noted, "if no steps are taken to begin remediating this crisis, it will only grow less achievable and more pressing over time. The collaborative program should engage all three levels of government and operate using accurate and current information" (p. 126). State and federal lawmakers can no longer ignore the physical state of public school buildings and classrooms.

Equity Concerns Tied to School Infrastructure

School infrastructure is not immune from the racist structures that produce and reproduce inequities across the E-12 system.

As we have noted in every other section of this paper, U.S. public schools face a myriad problems tied to systemic racism. School infrastructure is not immune from the racist structures that produce and reproduce inequities across the E-12 system. Filardo (2016) has documented that "the quality of public school buildings and grounds is a health, educational, and environmental equity issue for families and communities" (p. 6). Many states have "established by law the importance of facilities as a factor in equal opportunity in education" (Filardo, 2016, p. 6).

Minnesota should encourage districts to build schools in a manner that reflects a sense of care and respect for all students. Minnesota lawmakers must realize that the state of public school buildings is an important social justice issue. In particular, lawmakers should give particular attention to how poor school structures disproportionately harm (1) students of color and (2) transgender and gender non-conforming students.

STUDENTS OF COLOR AND SCHOOL INFRASTRUCTURE

As we have noted, LEAs must use levies and bonds for capital improvement projects. This means ZIP codes will often determine the quality of school buildings. Ciolino (2016) rightly argued, "The truth is our localities—particularly in low-income communities—do not have the financial resources to maintain the schools over which they have been delegated authority by their respective states" (p. 126). Fidalro (2016) has further stated,

Low-wealth districts often get trapped in a vicious cycle; underspending on routine and preventive maintenance in the short term leads to much higher building costs in the long term. It is not just students who are affected by the quality of the school facilities. (p. 7)

All children in Minnesota deserve safe, healthy, and clean spaces in which to grow and learn. Lawmakers must adjust funding formulas to account for the wide discrepancies between the quality of buildings and structures in wealthy and low-wealth districts. We have already discussed how climate change is disrupting learning in buildings. However, some students experience the effects of rising temperatures more than others do. Walker (2018) has noted that

Black and Hispanic students are more likely to attend high-poverty schools, which are more likely to lack air conditioning. In addition, more affluent parents are better positioned to reduce the academic effects of hot classrooms on their children with home air conditioning, or paying for a tutor after school.

Walker also confirmed, "The disproportionate impact of hot classrooms on students of color...'heat effects account for up to 13% of the U.S. racial achievement gap'" (Walker, 2018). Unfortunately, the lack of air conditioning is just one example of many that show how students of color attend school buildings with the most structural problems.

"Public school facilities play a significant role in determining a student's sense of self-worth and performance in school. Therefore, inadequate facilities for disadvantaged groups of children serve to compound the challenges that these children will face throughout their lives"

Minnesota cannot tackle the racial opportunity gap if students of color and low-income students go to school in sub-par buildings and classrooms. We remained troubled by the fact that

The quality of a child's public school building often depends on the property value to pupil ratio within the boundaries of arbitrarily drawn school district lines. This funding system relegates low income and minority students to substandard public schools, due to politically drawn lines. Meanwhile, higher wealth and predominantly white districts are capable of providing quality facilities to the students within their boundaries. (Ciolino, 2016, p. 109)

Researchers have confirmed, "public school facilities play a significant role in determining a student's sense of self-worth and performance in school. Therefore, inadequate facilities for disadvantaged groups of children serve to compound the challenges that these children will face throughout their lives" (Ciolino, 2016, p. 109). Minnesota lawmakers owe all students and educators, regardless of where they live and work, better learning environments.

TRANSGENDER AND GENDER NONCONFORMING STUDENTS AND SCHOOL INFRASTRUCTURE

Minnesota must also retrofit buildings to account for the rights of transgender and gender non-conforming students. The Minnesota Human Rights Act "prohibits discrimination and harassment in education based on gender expression, actual or perceived gender identity and actual or perceived sexual orientation." The Minnesota Department of Education has issued guidance that states:

Minnesota law provides that all students have the right to attend school in a safe and supportive environment where they can learn and have equal access to all educational opportunities. Illegal discrimination can occur if a student is expressly denied full utilization of a benefit at school, is indirectly denied full utilization of a benefit at school due to a policy, practice or procedure of the school or if a student is exposed to a hostile environment that interferes with the student's ability to learn or participate in activities at school. (Minnesota Department of Education, 2017, p. 4)

Many Minnesota schools are violating the rights of transgender and gender nonconforming students by not providing appropriate restrooms and locker rooms. We encourage all LEAs to make sure buildings in their districts comply with the guidance in the MDE document A Toolkit for Ensuring Safe and Supportive Schools for Transgender and Gender Nonconforming Students.

Many Minnesota schools are violating the rights of transgender and gender nonconforming students by not providing appropriate restrooms and locker rooms. We encourage all LEAs to make sure buildings in their districts comply with the guidance in the MDE document A Toolkit for Ensuring Safe and Supportive Schools for Transgender and Gender Nonconforming Students.

This requires school leaders to "ensure that all students have access to restrooms, have access to locker rooms to fully participate in classes, sports and activities and have access to hotel accommodations when travelling with school groups for athletic, educational and/or cultural purposes" (Minnesota Department of Education, 2017, p. 12). School officials must "work with transgender and gender nonconforming students to ensure that they are able to access needed facilities in a manner that is safe, consistent with their gender identity and does not stigmatize them" (Minnesota Department of Education, 2017, p. 12).

Minnesota's Infrastructure Funding Shortfalls

Researchers must account for widely different LEA budgets when accounting for Minnesota's infrastructure funding shortfalls. Ciolino (2016) explained how states pay for school capital investments by writing,

Many states have established funds in some form or another to provide for school facility construction, renovation and maintenance. These facility funds often are substantively inadequate by design, and many of them are underfunded on an annual basis by state legislatures...By and large, the states' general message is that public school facility financing is predominantly a local responsibility. (p. 109)

Minnesota ranks among the states not meeting the infrastructure needs of schools. Researchers estimate that all LEAs in the state will need approximately \$5.34 billion between fiscal years 2012 and 2024 to meet infrastructure costs.

Minnesota ranks among the states not meeting the infrastructure needs of schools. Researchers estimate that all LEAs in the state will need approximately \$5.34 billion between fiscal years 2012 and 2024 to meet infrastructure costs. In addition, Minnesota has the second lowest daily maintenance and operations (M&O) spending of any state after Georgia, at 7.7% (Filardo, 2016, p. 13). The students and educators in Minnesota deserve better facilities. It is time to rethink the infrastructure formula in Minnesota. State lawmakers must quit passing this bill down for LEAs and communities to pay.

Potential Solutions for Minnesota Policymakers

Minnesota needs to increase the amount of money it provides LEAs to build and sustain school facilities. It is time to move past formulas that tie school quality to ZIP codes.

SOLUTION #1: REINSTATE AND FUND THE GENERAL EDUCATION LEVY

Minnesota can solve many problems by changing the formula used to fund school capital investments. The state once used a general education levy to ensure all districts, regardless of their tax base, had the means to provide a quality education to their students. Unfortunately, lawmakers ended this levy from 2003 through 2012. Strom (2018) has documented that the levy returned under the name "student achievement levy" but "the 2015 Legislature repealed this levy beginning in fiscal year 2019" (Strom, 2018, pp. 10-11). Table 3.1 shows the revenue available for statewide use when a general education levy is in place. The lack of a general education levy has resulted in disparities across districts in terms of access to revenue. Property-poor districts reliant on voter-approved levies are less likely to have revenue for across-the-board operational needs, especially capital improvements. Many districts, especially rural Minnesota, would benefit from changing the current funding formula.
YEAR CERTIFIED	YEAR LEVY PAID	FISCAL YEAR	ADJUSTED NET TAX CAPACITY RATE	DOLLARS RAISED STATEWIDE
2017 and later	2018	2019	0.00%	0\$
2017 dild idier	2017	2018	0.16%	\$10,000,000
2015	2016	2018	0.30%	\$20,000,000
2013		2017		
	2015		0.33%	\$20,000,000
2013 *	2014	2015	0.35%	\$20,000,000
2000	2001	2002	32.38%	\$1,330,000,000
1999	2000	2001	35.78%	\$1,330,000,000
1998	1999	2000	36.58%	\$1,285,500,000
1997	1998	1999	36.9%	\$1,292,000,000
1996	1997	1998	37.4%	\$1,359,000,000
1995	1996	1997	40.8%	\$1,359,000,000
1994	1995	1996	34.2%	\$1,055,000,000
1993	1994	1995	34.9%	\$1,044,000,000
1992	1993	1994	30.7%	\$969,000,000
1991	1992	1993	27.9%	\$916,000,000
1990	1991	1992	26.4%	\$840,000,000
1989	1990	1991	26.3%	\$792,000,000
1988	1989	1990	29.3%**	\$1,100,580,000

TABLE 3.1: GENERAL EDUCATION LEVY FIGURES 1988-2017 (AND LATER)

*There was no general education levy for taxes payable in 2002 through taxes payable in 2013. * *Adjusted gross tax capacity. Table reproduced from (Strom, 2018, p. 11).

SOLUTION #2: INSTRUCT ALL SCHOOLS TO ADOPT POLICIES IN LINE WITH "THE NINE FOUNDATIONS FOR A HEALTHY BUILDING"

Researchers at Harvard T.H. Chan School of Public Health have developed a framework to guide the creation of health schools. Image 3.1 depicts the nine interlocking elements. Lawmakers should help LEAs ensure their schools meet the benchmarks in each area set by these researchers.

School buildings clearly influence "health and academic performance." And we echo the call of the Harvard researchers who have argued that "investing in school buildings is an investment in our collective future" (Healthy Buildings program, p. 32).



IMAGE 3.1: BENCHMARKS FOR HEALTHY SCHOOLS

*The nine benchmarks in table 3.1 come from Schools for Health: Foundations for Student Success, a report from the Harvard T.H. Chan School of Public Health. www.forhealth.org. (Healthy Buildings program, p. 9). Image 3.1 reproduced with permission from the Healthy Buildings program at Harvard T.H. Chan School of Public Health.

SOLUTION #3: REQUIRE ALL NEW MINNESOTA SCHOOL FACILITIES TO USE GREEN CONSTRUCTION PRACTICES

LEAs will save money by building environmentally conscious, green buildings. Researchers have shown that future savings will offset any higher upfront construction costs. State lawmakers should require all new construction to follow green building standards. Metzger (2017) has argued "requiring new school construction projects to be green demonstrates a commitment to fiscal responsibility, promotes green jobs, and encourages healthy, high-performance facilities for students and teachers" (p. 3). Minnesota should require all new school construction to be "certified by a rating system with third party verification, such as LEED" (Metzger, 2017, p. 3). This will ensure that "taxpayers, parents, and students can be certain the building has been constructed for maximum efficiency to reduce operating costs, and designed with occupant health in mind" (Metzger, 2017, p. 3). Green buildings save money and make for better learning environments. Minnesota must move in the direction of green schools.

SOLUTION #4: DIRECT LEAS TO CONDUCT REGULAR ENERGY AUDITS OF ALL SCHOOL FACILITIES

LEAs can solve some infrastructure funding gaps with simple data collection. Minnesota should pass legislation "requiring energy audits or emissions reduction plans" on a regular basis (Metzger, 2017, p. 5). Metzger has argued this will "give school districts a statistical foundation upon which they can base retrofitting projects or other green plans for their respective schools buildings" (p. 5). She provided Energy Star Portfolio Manager as a potential tool to help with this process. She described the benefits by writing,

Energy Star Portfolio Manager...is a free online tool that allows building owners to track and assess energy and water consumption, performance and cost information for individual buildings and building portfolios. Energy Star is also the required benchmarking platform for validating building performance in the LEED for Existing Buildings: Operations and Maintenance rating system. (Metzger, 2017, p. 5)

Minnesota SF1510, which failed in the 2017 legislative session, mandated that all public schools report energy consumption to a state data-tracking agency. This bill was a simple step toward a green solution for LEAs. Lawmakers should reconsider this legislation.

SOLUTION #5: PROVIDE FINANCIAL ASSISTANCE TO DISTRICTS WISHING TO EXCEED GREEN BUILDING STANDARDS

We have documented that green construction will save money for the state and LEAs. Minnesota can incentivize LEAs to embrace green construction with financial assistance. In 2013, Minnesota HF270 failed in the Legislature. It would have established "the school energy conservation revolving loan program to provide financial assistance to school districts to make energy improvements in school buildings that reduce statewide greenhouse gas emissions and improve indoor air quality in schools" (Metzger, 2017, p. 7). Lawmakers should revisit this bill because the "use of renewable energy sourced at the school building itself, such as solar or geothermal power, can promote significant energy efficiency and cost cutting benefits for both the school and the district" (Metzger, 2017, p. 7).

SOLUTION #6: REQUIRE LEAS TO RECYCLE, COMPOST, ELIMINATE TOXINS FROM SCHOOLS, AND DEVELOP PLANS TO REDUCE CONSUMPTION

It sounds dated, but Minnesota communities can still improve efforts to increase recycling, waste reduction, and composting. Researchers have proven that "recycling and reduced consumption continue to be two simple and proven ways to reduce the production of solid and hazardous waste" (Metzger, 2017, p. 8). We support Metzger's (2017) recommendation that "state legislators can introduce bills that mandate the creation of recycling programs for school districts or large communities, with funding incentives to offset costs" (p. 8). Minnesota needs to promote recycling and composting as cost-saving tools for districts.

In addition, Minnesota could follow the lead of 10 states and the District of Columbia who have adopted "a green cleaning policy" for schools, which improves "the indoor environmental quality for students, teachers, and staff, reducing instances of asthma and other illnesses that are a major cause of absenteeism" (Metzger, 2017, p. 9). Metzger (2017) has argued, "A green cleaning policy can include safer operations for custodial staff, a healthier indoor environment for building occupants" (p. 9). Beyond cleaning supplies, LEAs should follow "an integrated pest management plan," which would "protect students, teachers, and staff by reducing the application of harmful pesticides" (Metzger, 2017, p. 11). Minnesota HF270 would have also allowed LEAs to use funds for this type of effort to improve indoor air quality. Schools can make drastic changes for the better with more state funds.

SOLUTION #7: CALL FOR LEAS TO CONDUCT BETTER MAINTENANCE OF CURRENT BUILDINGS

Many Minnesota schools are in desperate need of repairs and retrofitting. In the 2016 State of Our Schools report, Filardo (2016) "estimated that districts were carrying at least \$271 billion in deferred maintenance and repairs. When including requirements for alterations and scheduled renewals of existing facilities, the estimated price tag doubled to \$542 billion" (p. 12). Ciolino has posited, "One of the main reasons for the current inadequacy of public school buildings is the failure to properly maintain these buildings over time. Studies have recognized the current system of public school maintenance as a 'run-to-fail system'" (p. 129). Scholars have cited that best practice calls for setting aside "2-4% of the total value of the school on maintenance each year" (Ciolino, 2016, p. 129). Minnesota lawmakers should mandate LEAs budget for future improvements because even though "setting aside millions of dollars a year for maintenance of school buildings to deteriorate" (Ciolino, 2016, p. 129).

SOLUTION #8: JOIN A FEDERAL COALITION ASKING THE FEDERAL GOVERNMENT TO COLLECT BETTER INFRASTRUCTURE DATA WITHIN THE U.S. DEPARTMENT OF EDUCATION

The federal government needs to do a better job of collecting data on the physical structures housing public school students and educators. Minnesota should join a federal coalition to press the U.S. Department of Education to collect and report this data. Filardo (2016) has argued:

addressing the nationwide funding gap requires that the American public and policymakers better understand the conditions in their own schools and how these facilities impact student and teacher health and performance, the environment, the local economy, and overall community vitality. A key requirement is to have better data on public school infrastructure. (p. 28)

Ciolino (2016) complained that "there actually are more people working on school facilities within the Environmental Protection Agency and the Department of Energy than within the Department of Education" (p. 127). We share this frustration and support efforts to encourage the Department of Education "to create an Office of School Facilities to ensure accountability that funding is properly utilized and inventories are properly maintained" (Ciolino, 2016, p. 127). This would be a vital step toward gathering the information needed to direct real and meaningful change for students and educators.

SOLUTION #9: GIVE LEAS THE FUNDING NEEDED TO RESPOND TO CLIMATE CHANGE

Minnesota lawmakers need to have a serious conversation about how climate change is stressing learning environments. Summers are hotter and longer and too many students suffer in buildings without air conditioning. Winters are also growing colder and snowier, and school buildings are deteriorating because of weather stress. Climate change is real, and it is making life difficult for educators and students.

SOLUTION #10: STOP BUILDING SCHOOLS THAT LOOK LIKE PRISONS

Many schools in the United States, including structures like South High School in Minneapolis, were built by the same architects who also designed prisons. Valencia (2018) cited the comments of Frank Locker, a respected architect, who framed the issue like this:

In the U.S., many of the same people who designed prisons also designed schools. What comes to mind when you see a long hall of closed doors, that you can't be in without permission, and a bell that tells you when to come in, when to leave, when class starts, when it ends? What does that look like to you?

This architect has argued that schools must "have the necessary space and tools to meet in groups of all sizes and participate in active learning" (as cited by Valencia, 2018). Anatxu Zabalbeascoa added to this sentiment by saying "the best learning spaces are those that have been designed with everyone in mind, that establish a relationship between the space and the outside world" (Valencia, 2018). It is important to design schools for students and educators. Minnesota needs to move beyond industrial buildings that resemble prisons.

SOLUTION #11: RETROFIT ALL MINNESOTA SCHOOLS WITH AIR CONDITIONING

It is unacceptable that many students must suffer through rising temperatures in buildings without air conditioning. It is even more problematic that districts cancel school due to excessive heat. Cedeño Laurent and colleagues (2018) have warned that "Health effects of heat stress due to climate change, manifested as cognitive function deficits, extend to larger sectors of the population and can have significant implications on educational attainment, economic productivity, and workplace safety" (p. 15). Walker (2018) confirmed that researchers have shown that "each 1 °F increase in school year temperature reduces the amount learned that year by one percent (or the equivalent of being absent for two days)" (Walker, 2018). In addition, students of color disproportionally attend schools without air conditioning. Lawmakers must provide funding to retrofit all school facilities with air conditioning.

SOLUTION #12: ENSURE ALL SCHOOL PLAYGROUNDS ARE SAFE AND ACCESSIBLE FOR ALL STUDENTS

The U.S. Consumer Product Safety Commission has "estimated that there were more than 200,000 injuries annually on public playgrounds across the country that required emergency room treatment" in the 2013-2014 school year (U.S. Consumer Product Safety Commission, December 2015, p. 1). Lawmakers should retrofit all existing playgrounds and require all new playgrounds to meet the the recommended guidelines for safe playgrounds from the U.S. Consumer Product Safety Commission.

SOLUTION #13: REQUIRE LEAS TO MONITOR AND IMPROVE AIR QUALITY IN ALL BUILDINGS

The Center for Green Schools and the U.S. Environmental Protection Agency (2011) have estimated that "more than 46% of U.S. public schools have environmental conditions that contribute to poor indoor environmental quality, including allergens and respiratory irritants that can cause asthma, headaches, nausea, weight gain, general irritation and cognitive impairment" (Center for Green Schools). The Center for Disease Control has also confirmed, childhood asthma "is the leading cause of student absenteeism and accounts for 13.8 million missed school days each year, according to the Centers for Disease Control and Prevention" (Center for Green Schools). The state should provide resources to help LEAs monitor and improve air quality in schools.

SOLUTION #14: PROVIDE THE RESOURCES LEAS NEED TO BUILD INCLUSIVE SCHOOLS

We have documented that schools fail to provide adequate accommodations for all students. Lawmakers should provide funding to help all schools:

- 1. Create safe spaces for transgender and gender nonconforming students.
- 2. Give special education programs enough space to provide all necessary interventions.
- 3. Provide Level IV settings for students who need space accommodations.
- 4. Build schools that meet the specific needs of educating preschool children.
- 5. Offer space to Early Childhood Family Education programs.
- 6. Help improve compliance with the Americans with Disabilities Act in all schools.

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The Need for Universal Preschool

Given that the brain is more malleable prior to age 5 than in later years, early childhood education can enhance cognitive, social, and emotional skills that will prepare children for later learning.

In 2016, the Educator Policy Innovation Center (EPIC) produced a report on the need for universal preschool for all Minnesota 4-year-olds (Educator Policy Innovation Center, 2016). Since that time, academic research has deepened our understanding of the potential benefits of statewide preschool, and has offered some warnings about the dangers of providing inequitable preschool experiences for different demographics of students as well as of offering preschool education programs that fall short of best practices.

Providing universal access to high-quality pre-K should be a priority if Minnesota is serious about closing opportunity gaps.

One thing has not changed since 2016, though. Minnesota still dramatically lags behind other states both in funding high-quality preschool for 4-year-olds and in participation in these programs. Providing universal access to high-quality pre-K should be a priority if Minnesota is serious about closing opportunity gaps. A \$500-600 million investment each legislative session would fully fund voluntary, half-day pre-K. This type of investment in highquality programs would reap between \$1 billion to \$3 billion in reward over time, according to multiple studies.

Why is Preschool Important for Children?

There is little question about the value of providing high-quality preschool education for children. There is a great deal of question about the value of providing less than high quality preschool for children. And, while Minnesota needs to make monumental strides toward far greater access to preschool education, we offer a serious caution about aiming just to get more kids into programs without paying serious attention to the quality of those programs.

Camilli et al., (2010) published a critically important meta-analysis of the extant literature on the benefits of preschool education. Their findings created the underpinnings for subsequent research on the benefits of preschool:

Consistent with the accrued research base on the effects of preschool education, significant effects were found in this study for children who attend a preschool program prior to entering kindergarten. Although the largest effect sizes were observed for cognitive outcomes, a preschool education was also found to impact children's social skills and school progress. Specific aspects of the treatments that positively correlated with gains included teacher-directed instruction and small-group instruction. (Camilli et al., 2010, p. 580)

Given that the brain is more malleable prior to age 5 than in later years, early childhood education can enhance cognitive, social, and emotional skills that will prepare children for later learning (Bartik, 2014). Nobel prize-winning economist James J. Heckman and Dimitriy Masterov have stated: "A large body of empirical work at the interface of neuroscience and social science has established that fundamental cognitive and non-cognitive skills are produced in the early years of childhood, long before children start kindergarten [...]. Later remediation of early deficits is costly, and often prohibitively so" (Heckman & Masterov, 2007).

When researchers examined the short- and long-term benefits of high-quality preschool, they found substantial benefits:

- Up to a 30% reduction in the achievement and opportunity gaps
- Cognitive and social emotional benefits
- Higher reading and math performance
- Improved achievement in kindergarten and first grade for English language learners
- Higher high school graduation rates
- Lower rates of teen pregnancy
- Higher lifetime income levels, and accompanying higher tax base
- More stable family lives

One of the driving factors in the push for expansion of high-quality preschool programs nationwide is that our understanding of brain development is far more advanced than it was when the K-12 school system was designed. We now know that the first five years of life are the years during which most brain development occurs:

The foundations of brain architecture, and subsequent lifelong developmental potential, are laid down in a child's early years through a process that is exquisitely sensitive to external influence. Early experiences in the home, in other care settings, and in communities interact with genes to shape the developing nature and quality of the brain's architecture. The growth and then environmentally-based pruning of neuronal systems in the first years support a range of early skills, including cognitive (early language, literacy, math), social (theory of mind, empathy, prosocial), persistence, attention, and self-regulation and executive function skills (the voluntary control of attention and behavior). Later skills—in schooling and employment—build cumulatively upon these early skills. (Yoshikawa et al., 2013)

We know now what we did not know decades ago: Earlier-age educational interventions provide more child development benefits than once supposed.

Investment in high-quality preschool more than pays for itself in the long run. Cost-benefit analyses have been conducted on a number of programs with the consistent result that investments in high-quality preschool yield large economic benefits for the communities in which those programs operate. In fact, the cost benefits for investment in preschool education are much greater than investments made later in the life of the child.

Another driving factor in the push for expansion of high-quality preschool has to do with cost-benefit analyses. Much work has been done on the ecomonic impact of high-quality preschool, and that evidence points out that communities actually benefit from a high return on their investment. Investment in high-quality preschool more than pays for itself in the long run. Cost-benefit analyses have been conducted on a number of programs with the consistent result that investments in high-quality preschool yield large economic benefits for the communities in which those programs operate. In fact, the cost benefits for investment in preschool education are much greater than investments made later in the life of the child. As Heckman pointed out, "the economic return from early interventions is high, and the return from later interventions is lower. Remedial programs in the adolescent and young adult years are much more costly in producing the same level of skill attainment in adulthood" (Heckman, 2006).

As Bartik argued, before we look at specific cost-benefit ratios, it is important to understand a few points about what the numbers mean. Legislators and other stakeholders often seek simple ratios to use when advocating for the expansion of preschool programming. But it is not quite as simple as saying that there is, for example, a 7-to-1 or a 12-to-1 ratio of cost savings for all preschool programs.

Two factors must be taken into consideration before ratios make sense. First, we need to understand that the cost savings multiply over time as preschool participants age. It makes a difference whether we are asking how much communities save relative to their investments when the participants are 10 years old or when they are 40. When participants are 10, communities have saved some dollars because there are, for example, lower remediation and special education needs. When participants are 40, however, communities will have saved much more because in addition to the savings realized during the formal education process, they are also realizing savings due to decreases in criminality, dependence on social services and substance abuse services, and they have realized higher tax revenue due to increases in wages.

It is quite apparent that preschool programs that reflect best practices for benchmarks of high-quality do in fact lead to significant economic benefits.

Second, we need to understand that not all preschool programs provide an equally enriching experience for their students, and the quality of the program matters a great deal if we are looking for a greater cost-benefit ratio. As Barnett and Masse (2007) and Heckman (2011) have stated, the quality of the programming has everything to do with its cost benefit (Barnett W. & Masse, 2007). Intensive, well-designed programs "have generated benefits 10 times greater than their costs whereas poorly designed programs may not even return their costs" (Heckman J. J., 2011). We must remember the pitfalls of large-scale, low-quality preschool programs, such as Tennessee's Voluntary Preschool program, which is yielding no measurable benefit. It is simply not honest to say that any universal, voluntary preschool program will lead to dramatic economic savings for Minnesota. It is quite apparent that preschool programs that reflect best practices for benchmarks of high-quality do in fact lead to significant economic benefits. Essential components of high-quality preschool programs are discussed later in this paper, but it is important to note here that great economic benefits to the public are realized only when we look at high-quality programs.

In addition to the money saved by investing in interventions earlier rather than later in a child's life, communities with high-quality preschool programs reap further economic rewards. Communities that invest in high-quality preschool realize higher tax revenues, and lower costs related to crime, welfare dependance, and substance abuse. However, we need to understand that not all preschool programs provide an equally enriching experience for their students, and the quality of the program matters a great deal if we are looking for a greater cost-benefit ratio: "A large body of data from economics, biology, and psychology shows that educational equity is more than a social justice imperative; it is an economic imperative that has far-reaching implications for the nation. Taking a hard look at the economic value of efforts to create human capital helps people see where best to invest their resources in education to achieve its ideal–equalizing opportunity to build greater and enduring value for all" (Heckman J. J., 2011).

For more information on the benefits of high-quality preschool, see *The Best Start for Students: Why Minnesota Needs Universal pre-K* (Educator Policy Innovation Center, 2016), "Meta-Analysis of the Effects of Early Education Interventions on Cognitive and Social Development," (Camilli et al., 2010), "Why Preschool is Critical to Closing the Achievement Gap" (Frede & Barnett, 2011), and Investing in our Future: The Evidence Base on Preschool Education (Yoshikawa et al., 2013).

A National Review of Preschool Offerings

The National Institute for Early Education Research (NIEER) publishes a summary of each state's work to create better access to state-funded preschool education. NIEER's *The State of Preschool 2017* reported the states' overall spending on preschool, each states' per-pupil spending on preschool, the percent of 3-year-olds and 4-year-olds served, and the number of high-quality characteristics of preschool programming that each state commits to in their programming.

NIEER has been tracking this data since 2002, and they note that despite the overwhelming evidence that high-quality preschool is critical for young children, progress at the state level "has been uneven" (National Institute for Early Education Research, 2018, p. 5). Four states "served a smaller percentage of 4-year-olds in 2017 than they did in 2002. And 19 states, including seven with no state-funded preschool program, enroll less than 10 percent of 4-year-olds in state funded preschool" (National Institute for Early Education Research, 2018, p. 5). Minnesota ranks 37th among all states in terms of the percent of 4-year-olds enrolled in state-funded preschool. That includes six states that offer no such programming at all.

GRAPH 4.1: NATIONAL FIGURES ON PRESCHOOL ENROLLMENT

Percent of 4-year-olds enrolled in state preschool



Graph reproduced from National Institute for Early Education Research, 2018.

In addition, between 2002-2018, states increased their overall spending on state-funded preschool, but actually decreased their per-pupil spending: "In 2002, states spent an average of \$3,458 per child, the equivalent of \$5,395 in 2017 dollars. In 2017, average state preschool spending per child was \$5,008, a substantial decrease in real dollars (National Institute for Early Education Research, 2018, p. 6). A decrease in per-pupil funding is significant, because that dollar amount is tied directly to program quality, and program quality has everything to do with the potential benefits of any given program for its students and for its communities. Inequity in terms of state spending per pupil has grown dramatically over this time period, with one state, New Jersey, spending "more than \$12,000 per child, and seven states [spending] at least \$7,000 per child [...]. At the same time, seven states now spend less than \$3,000 per child" (National Institute for Early Education Research, 2018, p. 122).

It is critical to note that a given state's per-pupil funding amount is only a powerful an indicator of progress if the number of children being served is high. There are states with broad reach but low-quality programs, and there are states with a very small reach but higher-quality programs.

We have "better evidence for the effectiveness of early childhood education than for almost any other educational intervention" (Bartik, 2014).

An overview of states' efforts at meeting the needs of young learners without spending sufficient money to do that equitably or well should be put into the appropriate context. Some opponents of expanding state-funded preschool will attempt to block expansion of existing programs, the development of new ones, or the improvement of existing programs, claiming that the costs are simply too high. And the costs are high.

But there are two critical considerations to keep in mind. First, we now know more about brain development and how early the achievement gap can be measured. Second, we know that investment in early education leads to cost savings in the long run.

Given what we now know about the importance of the first five years of life for lifelong development and given the cost-benefit data available, it is both ethically and fiscally irresponsible not to radically alter our public school system to reflect this knowledge. In fact, given how dynamic brain development is in these early years and given the exponentially higher costs of later interventions, one could argue that is is more damaging to fail to provide high quality and age-appropriate education to our youngest learners than it would be to stop offering sixth grade. We have "better evidence for the effectiveness of early childhood education than for almost any other educational intervention" (Bartik, 2014).

Minnesota's Path to Universal Prekindergarten

Minnesota's progress has been slow, and its progress has largely been made by expanding reach without regard to quality, consistency, or equity. The percentage of 4-year-olds enrolled in our state's state-funded preschool programs has risen from 1% in 2002 to 6% in 2017 (National Institute for Early Education Research, 2018, p. 105), and is marginally higher now. The jump from 1-2% of 4-year-olds who were accessing state-funded preschool from 2002 through 2016 to 6% in 2017 reflects the jump in access made possible by the voluntary preschool program that Gov. Mark Dayton signed into law in 2016. In the 2016-2017 school year, Minnesota's voluntary preschool program enrolled 4,603 students, and currently, in the 2018-2019 school year, it enrolls 7,106 children (Minnesota Department of Education, Voluntary, 2018). These programs are offered in 128 school districts and charter schools at 233 sites across the state (Minnesota Department of Education, Voluntary, 2018). As of 2017, Minnesota ranked 37th in the nation in the percentage of 4-year-olds who were enrolled in state-funded preschool. Over that same time span, our state's per-pupil funding dropped from \$9,298 in 2002 to \$6,296 in 2017 (National Institute for Early Education Research, 2018, p. 106).



GRAPH 4.2: PERCENT OF MN STATE POPULATION ENROLLED IN MN VOLUNTARY PRESCHOOL

Graph produced with data from (National Institute for Early Education Research, 2018, p. 105).



GRAPH 4.3: MN STATE SPENDING PER CHILD ENROLLED IN VOLUNTARY PRESCHOOL

Graph reproduced with data from (National Institute for Early Education Research, 2018, p. 106).

Not included in the numbers cited in Graphs 4.2 and 4.3 are the students served by or the dollars spent on Minnesota's Early Learning Scholarship program, a voucher-styled program that provides scholarships to eligible families who can then use that money at any child care program that receives a 3-star or 4-star Parent Aware rating.

Minnesota's state-funded early learning programs lag far behind most other states and even further behind evidence-based best practices. Minnesota enrolls 7,106 4-year-olds in voluntary preschool and offers early learning scholarships to 12,101 more to attend a great variety of child care programs, some of which are high-quality, some of which are not. In Minnesota, currently 161,000 children live in poverty, in households with a combined income of \$24,339 or less for a family of four, and 64,971 of those children are under the age of 6 (National Center for Children in Poverty, 2018). If we consider the category of low-income families, which are defined as those with a total income of less than \$48,678 for a family of four, the numbers grow larger. In Minnesota, 400,203 children, 32% of our state's children, live in low-income families, and 145,595 of those are under the age of 6 (National Center for Children in Poverty, 2018). Minnesota is home to roughly 76,000 4-year-olds. We have statefunded preschool opportunities, even if we include the early learning scholarships, which can be used for widely varying types of programs, for 19,207 of them.

The Importance of Quality for All Preschool Students

Stakeholders interested in barring states' attempts at moving toward universal preschool programs available to all children often point to research that finds that some state-funded programs fail to yield the hoped-for results. As discussed in EPIC's 2016 paper on universal preschool, this kind of maneuvering might be politically advantageous for some adults, but it is neither honest nor in the best interest of children (Educator Policy Innovation Center, 2016). There are state-funded preschool programs that fail to meet quality benchmarks, and those programs fail to deliver the results shown to be possible with higher-quality programming.

A common example of this problem is Tennessee's state-funded preschool program. Two studies have now shown Tennessee's preschool program to be ineffective, such that researchers cannot identify substantial benefits to the group of students who had access to the program when they are compared to those who did not. An early study of Tennessee's program caused one writer in the *Wall Street Journal* to declare the program's outcomes to be "devastating for advocates of the expansion of state preschool programs" (Lipsey, 2013). But, as W. Steven Barnett of the National Institute for Early Education Research has explained, if your program isn't very good, you can't expect it to have long-term impact on kids. What Tennessee's program should teach us isn't that we should not heed the research that shows the potential benefits of preschool for all of our children; it's that we should heed the warnings offered by programs that have cut corners in an effort to keep costs down. Compromising quality by failing to put quality benchmarks and standards in place system wide or by underfunding a program leads very quickly to a system that fails (Educator Policy Innovation Center, 2016).

Minnesota's early learning scholarships fail to meet commonly adopted and research-based benchmarks for high-quality programming. Scholarships can be used at any center that has a high rating on Minnesota's Parent Aware system. The Parent Aware system identifies some "best practices," though they in no way align with best practices identified by the nation's most successful preschool programs. And even among those practices that are identified in the Parent Aware system, a center can get the highest possible rating, a 4-star rating, by just meeting some of those "best practices." For example, one of the best practices identified in the Parent Aware system is that a center "responds to unique cultural customs and needs of children and families." That's not a requirement for a 4-star rating. It is an option. We know that culturally relevant practice cannot be optional if Minnesota wants to close opportunity gaps, yet the current Parent Aware system does not require it. Another is that the center "has highly-qualified and trained leadership staff, teachers, and providers." Again, that's not a requirement. Prekindergarten-12 learners have a right to be taught by a licensed teacher. Minnesota's licensed teachers must undertake cultural competency training or in some other way demonstrate cultural competency development at every level of licensure renewal, without exception.

Minnesota's young learners have learning needs that are more complex and nuanced than at any other stage of their lives. Prekindergarten-12 learners have a right to be taught by a licensed teacher. Minnesota's licensed teachers must undertake cultural competency training or in some other way demonstrate cultural competency development at every level of licensure renewal, without exception. Minnesota teachers are required by law to participate in teacher development and evaluation programs, they must abide by statewide curricular standards that are regularly re-evaluated, and they must communicate with parents and families about the progress of the students in their classes. These high standards reflect the quality needed to undertake a pre-K program that will yield the return on investment outlined by economists.

Our early learning scholarships are available by application to families that qualify based on income. Ostensibly, this is a way to target the young learners who most need the assistance. However, targeting individual famlies based on income is not a way to reach the learners who most need the help. As Barnett explained,

One fundamental problem with targeting children based on family income is that family income is constantly changing. This requires programs to shoot at a moving target, which they frequently miss. According to the Census Bureau, over a 3-month period more than 40 percent of children are poor for two or more months, but less than 6 percent are poor every month. The federal Head Start program, which provides preschool to children in poverty, offers a clear example. At least 90 percent must be poor at program entry, but when they leave, less than half of the children are poor. The problem with this is not so much that nonpoor children are served, though it does reduce this supposed advantage over preschool for all, but that so few children who fall into poverty are reached by targeted programs. (Barnett W. S., 2015)

Another critical problem with targeted scholarships is that children from middle-income families really do need high-quality preschool in order to thrive. A national study that observed "the quality of teaching in preschool classrooms found that only a quarter of children from middle-income families attended good preschool programs that might be expected to significantly improve their learning" (Barnett W. S., 2015). As Yoshikawa explained, "Folks have had a lot of questions about the value of universal preschool. Both Boston and Tulsa show substantial benefits for kids from middle-class families. Children from low-income backgrounds benefit more...but it's not that poor kids benefit and middle-class students don't" (Shaw, 2014).

Pouring money into early learning scholarships instead of investing in a universal preschool program ignores what we know yields the most profound results for children.

Minnesota's early learning scholarship program has grown from reaching 4,583 4-year-olds in 2015 to reaching 12,101 students in 2017 (Minnesota Department of Education, Early learning, 2018). As the law stands now, Minnesota is set to continue to pour more money into early learning scholarships, while at the same time putting no new money into our voluntary preschool program, which can serve all students in a district in ways that are far better steeped in best practices. According to the House Education Finance Committee's February 2018 forecast, the amount spent on scholarships by the 2020-2021 school year will grow to \$141,418,000. Minnesota is spending money on young learners. We are simply refusing to spend that money on a preschool program that can offer equitable, high-quality education that is both age-appropriate and delivered by teachers who are as qualified to teach as their K-12 counterparts. Pouring money into early learning scholarships instead of investing in a universal preschool program ignores what we know yields the most profound results for children.

Proponents of early learning scholarships often depict these expenditures as a compromise. They think scholarship dollars that target those most in need are a good compromise if the state cannot afford universal preschool. If Minnesota is serious about finding a compromise between investing immediately in high-quality preschool for all 4-year-olds whose families want it and something bigger, then invest in high-quality preschool programs that are open to all 4-year-olds in neighborhoods with the highest concentrations of poverty. This way, we still target the learners who are most in need, we stop pretending we can target the individual families one at a time based on a single shapshot of family income, and we can hold those programs to the same levels of accountability and high standards as our K-12 programs are held to.

Quality Benchmarks are Important for Preschool Students

Preschool for 4-year-olds offers a solid first step to addressing the achievement and opportunity gaps head-on. Offering programs that meet high standards to all Minnesota 4-year-olds will give children the chance to start their academic careers in safe, engaging learning environments with trained, effective educators to guide their learning, to provide them the chance to experience education in a positive way and to build on that success in kindergarten and beyond. But if Minnesota is not serious about quality, it cannot expect to yield the benefits that have been realized in other places. A quality universal system must include:

- Licensed early childhood teachers.
- Programs run as public school offerings.
- Curriculum that is age-appropriate and aligned with the Minnesota Early Childhood Indicators of Progress.
- Class size capped at 20 and student/staff ratios capped at 10:1.
- Vision, hearing, and health screening and referral.
- Family outreach and wrap-around services.
- Administrators and paraprofessionals trained in age-appropriate, play-based education for early learners.

The Importance of Licensed Early Childhood Teachers

One of the most critical characteristics of high-quality preschool is a requirement that instruction is undertaken by highly-qualified, licensed, early childhood teachers. Research has pointed to strong teacher qualifications as being one of the defining characteristics of high-quality preschool programming. Oklahoma's preschool program, for example, stands apart from that state's Head Start program in quality and in outcomes due in large part to its insistence on strong teacher qualifications. Given what we now know about how critical these years are in terms of children's brain development, it is nonsensical to assert that we should provide lesser-prepared teachers for them.

Early childhood is a unique period for social, cognitive, and emotional development. Successful educators who have the rigorous academic and clinical background are, therefore, better equipped with necessary tools. They have access to pedagogical resources, they are steeped in the latest research, and they belong to networks that allow them to stay updated as new research evolves. The historical, vastly inequitable treatment of teachers of our youngest learners, many of whom are women of color, must be addressed. Education Minnesota supports a long-term plan to develop an on-ramp program that allows the people already doing some form of preschool education to attain full licensure while continuing to earn a living.

The issue of full teacher licensure for preschool teaching is complex. Right now, there are thousands of people in Minnesota teaching preschool learners, and they do so on razor-thin margins, earning about half of the salary, on average, of local K-12 teachers. The historical, vastly inequitable treatment of teachers of our youngest learners, many of whom are women of color, must be addressed. Education Minnesota supports a long-term plan to develop an on-ramp program that allows the people already doing some form of preschool education to attain full licensure while continuing to earn a living. The development of that on-ramping program must include representatives from the workforce already working with our 3-year-olds and 4-year-olds, appropriate teacher preparation providers, and other stakeholders.

A Universal Prekindergarten Program Must be Run as a Public School Offering

One element that can ensure quality, and that can provide a mechanism for accountability related to that goal, is centralized oversight. In some states, as well as among the programs on which Minnesota's early learning scholarships are used, preschool programs are run through a variety of entities. This arrangement almost guarantees that standards throughout the state will vary wildly. A program that has statewide coordinated governance and a centralized system is the most logical way to set and maintain high standards (Best & Cohen, 2013). Public schools are already set up to offer ongoing professional development so that teachers can stay informed and up to date on best practices in this complex and ever-evolving field.

All Educators Must Use Curriculum That is Age-Appropriate and Aligned with the Minnesota Early Childhood Indicators of Progress

A unique pedagogy is required for effective early childhood education. Minnesota has adopted and implemented Early Childhood Indicators of Progress, standards that align with those of the K-12 system, and these should be the cornerstone of the state's preschool system. Program design should be based on the fundamental understanding that play is essential for children's health and well-being, and that a great deal of learning happens in purposefully directed play. Minnesota's standards are based on widely-accepted developmental expectations for children of approximately 4 years of age and receive high rankings nationally.

We know that high-quality preschool programs depend in large part on the high qualifications of the professionals who teach in them.

Lacey Smith teaches kindergarten in Grand Marais, Minnesota. She described how young learners' play is structured around academic standards: "The standard might be to memorize coins. And a room might have a little farm stand play area, and the kids go around and put a pear, or maybe some grapes into their baskets, and they go to the cash register that has coins, and they count their coins. It's an authentic reason to use the money; they are identifying money; they are counting it. It is play, but it is specifically structured play that targets their academic or social and emotional growth based on what we know is happening for them developmentally" (Smith, L, Personal Communication, October 15, 2015). We know that high-quality preschool programs depend in large part on the high qualifications of the professionals who teach in them.

Prekindergarten Class Sizes Must be Capped at 20 with Student-to-Staff Ratios Capped at 10:1

Class sizes and student/teacher ratios must fall within recommended guidelines. National standards set a class size limit of 20 students, and a student-to-staff ratio of 10:1 (Barnett & Carolan, 2013). In its national quality standards checklist, NIEER also requires a maximum class size of 20 or fewer and student-to-staff ratios of 10:1 or better (National Institute for Early Education Research, 2018).

Quality, Universal Prekindergarten Must Include Family Outreach Services and Vision, Hearing, and Health Screening and Referral

One of the many reasons kindergarten teachers lament the lack of high-quality preschool is that student needs are not identified until they are already far behind their peers. Having family outreach services that include vision, hearing, and health screenings, as well as the opportunity to identify special education needs earlier, will allow districts to build better relationships with families and to identify barriers to learning earlier, making it far more likely that the children can show up for kindergarten ready to learn.

Quality, Universal Prekindergarten Must Include Administrators and Education Support Professionals Trained in Age-Appropriate, Play-Based Education for Early Learners

Both administrators and paraprofessionals working with preschool programs need to have the skills and understanding to effectively support early childhood education. The most effective preschool programs also provide classroom observation linked to coaching and professional development for teachers (Barnett & Carolan, 2013; Best & Cohen, 2013). We recommend that a requirement for all administrators at the point of licensure renewal is training on age-appropriate, play-based education for early learners.

Conclusion

We recognize that developing a preschool system that serves all of our young learners according to research-based best practices will take time, money, and a collaborative commitment from stakeholders. A real investment of \$500-600 million would allow for Minnesota to offer voluntary half-day pre-K to every Minnesota child. Robust conversation and problem solving is needed to address the issues raised here and others, including transportation concerns, district, and private center collaboration, appropriate professional development, the amount of time young learners are in preschool, and the appropriate infrastructure needed for high-quality preschool. Let us stop ignoring the problem and stop giving heed to those whose primary interest is private profit. Let us instead take what we know about the vast inequities that hold too many of our students back and commit ourselves to developing a system that can allow all of our young learners to thrive.

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Yoshikawa, H. W.-G. (2013). *Investing in our future: the evidence base on preschool.* Washington, D.C.: Society for Research in Child Development. Interrupting Racism, Strengthening Communities, and Accelerating Student Learning: The Need for Restorative Practices and Trauma-Informed Schools in Minnesota

If a student does not know how to read, we teach the student to read. If a student does not know how to behave, we punish the child. This is the root of the problem. Educators need the agency to tackle the behavioral limitations of students in the same way they confront the academic limitations of students. Allow educators to teach students life skills, both academic and behavioral.

Educators must adopt an anti-racist mindset when thinking about school climate. Being non-racists is not enough. Educators should confront systemic and overt racism at every level.

- Education Minnesota's Trauma-Informed, Restorative Schools EPIC Team

In 2017, a team of Education Minnesota members with the Educator Policy Innovation Center released a transformative call for lawmakers to build systems that allow educators and schools to use restorative practices as opposed to the exclusionary interventions (primarily suspensions and expulsions) that fail to make schools safer. In that paper, educators asked for a drastic shift to start repairing decades of harm caused by systemic exclusionary and police-based practices that disproportionally harmed, and continues to harm, students of color, students with disabilities, and students identifying as LGBTQ+. The advisory team also encouraged Education Minnesota to advocate for these changes because current exclusionary practices are feeding a school-to-prison pipeline that fails all students.

Educators want more resources, professional development, and help implementing alternative disciplinary interventions. Minnesota's elected leaders must heed this call.

Educators across Minnesota have called for trauma-informed, restorative practices. From the lobbying agenda of Education Minnesota to new professional development that helps members start the process of building trauma-informed, restorative schools, Education Minnesota is now in the second year of advocating for these changes. However, educators want more resources, professional development, and help implementing alternative disciplinary interventions. Minnesota's elected leaders must provide funding to provide these tools to educators.

Previous members of the original EPIC team on this topic, as well as new members, met to discuss next steps and needed changes to current thinking and outreach. The original paper and the supplementary documents associated with the paper are all free to the public on Education Minnesota's website. The original paper is titled:

From Exclusionary to Restorative: An Intentional, Trauma-Sensitive Approach to Interrupting Racial Disparities, Reducing Violence, Strengthening Communities, and Accelerating Student Learning.

We offer this section as an addendum to that work. At times, we will identify exact phrases and sections from the previous paper with appropriate citation. Other times, we will edit previous sections and include old material in a new frame. We also start by making it clear that:

- This addendum does not contradict or change the central message of our original paper. The EPIC advisory team still supports that important document, but we provide new research perspectives gathered within the past two years in this addendum to build on that work.
- 2. The paradigm shift we discuss in this addendum and in our previous work about these practices is not one more initiative we hope to add to the agendas of overworked educators. Instead, we stand by our previous argument that we hope to "shift the way educators, schools, and communities think about and respond to student needs and behavior" (Educator Policy Innovation Center, March 2017, p. 78). We offer a new way of living, being, and thinking. We offer a complete reframing of school behavior, climate, and intervention and not an alternative program to replace old practice.

We offer a new way of living, being, and thinking. We offer a complete reframing of school behavior, climate, and intervention and not an alternative program to replace old practice.

We strongly believe that Minnesota lawmakers can help schools improve and eradicate both the academic opportunity gaps and the racial discipline gaps by providing the resources educators need to interrupt racism, strengthen communities, and accelerate student learning. Educators trained as restorative practitioners working in trauma-informed schools will build the schools worthy of Minnesota's students. It is time to provide the resources to help educators with this process. Increasing the school safety grants, and expanding them to fund training in trauma-informed, restorative practices would go a long way to providing the support needed to create transformative change.

We strongly believe that Minnesota lawmakers can help schools improve and eradicate both the academic opportunity gaps and the racial discipline gaps by providing the resources educators need to interrupt racisms, strengthen communities, and accelerate student learning. Educators trained as restorative practitioners working in traumainformed schools will build the schools worthy of Minnesota's students. Equity, Student Rights, and Discipline Gaps: School Safety and School Climate in the United States and Minnesota

Currently, we have a federal Department of Education that is unwilling to lead on the topics of school safety and school climate. Therefore, Minnesota lawmakers must fill this void by helping educators build schools that (1) fight racism, (2) welcome all students, and (3) accelerate learning, and (4) strengthen communities with non-exclusionary practices.

In December 2018, U.S. Secretary of Education Betsy DeVos and the Federal Commission on School Safety released the *Final Report of the Federal Commission on School Safety*. President Donald J. Trump created this commission after the tragic school shooting that took place at Parkland High School in Parkland, Florida in which 17 people lost their lives and another 17 suffered non-fatal injuries. Unfortunately, the lengthy report from DeVos and her colleagues offered very little advice on how to improve school climate for students and educators. Instead, the commission used bad evidence and weak studies to call for the termination of Obama-era reforms aimed at reducing the use of exclusionary interventions in schools. Currently, we have a federal Department of Education that is unwilling to lead on the topics of school safety and school climate. Therefore, Minnesota lawmakers must fill this void by helping educators build schools that (1) fight racism, (2) welcome all students, and (3) accelerate learning, and (4) strengthen communities with non-exclusionary practices.

Minnesota consistently ranks near the top of states with the worst racial discipline gaps. In addition, the Minnesota Department of Education regularly reports that disciplinary incidents and the use of exclusionary interventions are both increasing with each academic year. We find the lack of federal leadership particularly troubling because we know:

Exclusionary discipline policies: (1) have not led to safer schools or higher levels of academic achievement, (2) have helped to create and sustain the school-to-prison pipeline, and (3) have created a discipline gap in public schools because students of color, students with disabilities, and LGBTQ+ students are far more likely to face suspension and expulsion for behaviors that, when demonstrated by White students, are met with less severe responses. (Educator Policy Innovation Center, March 2017)

Minnesota consistently ranks near the top of states with the worst racial discipline gaps. In addition, the Minnesota Department of Education regularly reports that disciplinary incidents and the use of exclusionary interventions are both increasing with each academic year. Finally, the Minnesota Department of Human Rights has recently declared the use of exclusionary interventions to be a violation of the state Human Rights Act when one protected class of students receives a disproportionate amount of these interventions.

The most recent federal data also pointed out for the first time "data on the days of lost instruction due to out-of-school suspensions" (Losen & Whitaker, 2018, p. 4). This is the first time federal agencies have accounted for the actual classroom hours students lost due to suspensions and expulsions. Unfortunately, "the Trump administration's failure to even mention these new data raises concern that they will not pay attention to the serious civil rights issues raised by racially disparate discipline practices" (Losen & Whitaker, 2018, p. 4). Minnesota lawmakers must lead the way to correct these problems for students and educators.

We are past the point of placing blame or pointing fingers. We have always acknowledged that our national affiliates, the American Federation of Teachers and the National Education Association, were early champions of many behavioral interventions we now know to be problematic. In our previous report on this topic, we wrote:

The behavioral intervention problems occurring in Minnesota schools are the direct result of several decades of mandatory policies from the state and federal governments that were supported by well-meaning stakeholders. The over-reliance on exclusion originated from several structural problems. The current crisis is not the fault of a single group, person, or political party. Exclusionary practices were originally endorsed by unions, administrators, parents, and educators. Now, most of these groups have now acknowledged missteps in implementation. Educators, administrators, and politicians want to help students, but they are stifled by a failed system. The solution will require all stakeholders working to remove bad policies and change engrained practices. (Educator Policy Innovation Center, 2017, p. 18)

Minnesota's schools exist in a racist system rooted in White supremacy. We want to lead by example and offer solutions to the growing school climate crisis rather than place blame.

Minnesota's schools exist in a racist system rooted in White supremacy. We want to lead by example and offer solutions to the growing school climate crisis rather than place blame.

Researchers and educators have shown us that "exclusionary discipline policies that rely foremost on suspensions and expulsions...have done more damage than almost anyone could have envisioned" (Educator Policy Innovation Center, March 2017). In our previous report, we have three factors that led to the school climate problems in Minnesota. We wrote:

- Bad policies have trapped educators at the intersections of mandatory disciplinary procedures, a lack of effective professional development and resources, and implicit bias. As a result, current exclusionary disciplinary practices are harmful to students, educators, schools, and classrooms. They magnify harmful racial inequities and fill the school-toprison pipeline.
- 2. Budget cuts have resulted in fewer support services, burgeoning class sizes, and less professional development. This means educators do not have the resources to prevent problematic behaviors.
- Well-intended, anti-weapons policies have morphed into mandatory, severe punishments for even minor infractions. No Child Left Behind, and other unfunded, failed federal mandates, have accelerated the use of exclusionary interventions rather than offering better alternatives. (Educator Policy Innovation Center, 2017)

Our current policies have not built safe schools, so it is time to dismantle the system and build an equitable future for all students.

Minnesota's lawmakers can reverse these trends. We will discuss "appropriate, researchbacked approaches to student behavior that Minnesota can adopt in place of exclusionary policies...to interrupt racial disparities, reduce violence, and accelerate student learning" (Educator Policy Innovation Center, March 2017). In what follows, we advise Minnesota lawmakers to fund the building of trauma-informed schools staffed by educators trained in restorative practices. We make this case by:

- 1. Introducing key terms associated with school climate and the discipline gap.
- 2. Defining the scope of the problem at the national and state level.
- 3. Discussing the link between adverse childhood experiences (ACEs) and school climate.
- 4. Offering examples of successful shifts toward restorative practices and trauma-informed schools.
- 5. Providing state resources to help educators.
- 6. Offering policy solutions for lawmakers.

"To divest from punitive policies—to cease practices of suspension and expulsion—I argue, quite simply, that we have no other promising choice."

Lisbet Simmons, PhD

It will take a long time to correct the damage created by problematic behavioral interventions. However, the payoff is worth it. We embrace the comments of Simmons (2017) who wrote, "To divest from punitive policies—to cease practices of suspension and expulsion—I argue, quite simply, that we have no other promising choice" (Simmons, 2017, p. 23). Our current policies have not built safe schools, so it is time to dismantle the system and build an equitable future for all students.

Gratitude to the Indigenous Peoples of North America, and Especially Those of Minnesota

We currently occupy Native land, and we will soon be referring to practices developed by the people of the First Nations of North America. We must honor, recognize, and always acknowledge that restorative practices are a gift from communities of people who have often been the victims of historic trauma imposed by White Americans.

In the remainder of this document, we will discuss several restorative practices educators might use to change school climates. However, these practices are part of a rich tradition that pre-dates all immigrants to North America. We currently occupy Native American land, and we will soon be referring to practices developed by the people of the First Nations of North America. We must honor, recognize, and always acknowledge that restorative practices are a gift from communities of people who have often been the victims of historic trauma imposed by White Americans. Nancy Riestenberg (2012), a respected expert on restorative practices, has reminded educators that the circle process, a common restorative practice in schools, came from "ancient, unbroken indigenous wisdom" (p. 216). The circle, as it relates to restorative practices, represents the "spiritual values of Indigenous Peoples in North America–values such as respect, honor, compassion, forgiveness, and generosity" (Riestenberg, 2012, p. 119). We acknowledge the traditions from which many of the practices we discuss originated. This process is a gift from Indigenous peoples, and we acknowledge this to further step toward repairing systemic harms caused across several generations.

Important Terms Associated with School Climate and Behavioral Interventions

We use a lot of education terminology in the following pages. Many of the terms we use carry several meanings depending on the context in which they are used. In this section, we clarify what we mean by each term.

1. EXCLUSIONARY PRACTICES

An exclusionary practice is a behavioral intervention tied to the failed zero-tolerance policies of the past. Suspensions and expulsions are the most common forms of these punishments. Cruz and Rodel (2018) defined an exclusionary practice as an intervention "that involves removing a student from school for violating the school district's adopted code of conduct for expected behaviors" (p. 226). Scholars have consistently found that exclusionary practices decrease academic achievement and increase the likelihood that a student will end up involved with the criminal justice system (Cruz & Rodl, 2018, p. 226).

2. SCHOOL-TO-PRISON PIPELINE/CRADLE-TO-PRISON PIPELINE

In our previous reports, we have defined the school-to-prison pipeline as "the punitive pathways that move many Minnesota students out of classrooms and into the criminal justice system" (Educator Policy Innovation Center, March 2017, p. 38). We support the work of Heitzig (2009) who defined this term as a system of "tracking students out of educational institutions, primarily via zero tolerance policies, and tracking them directly and/or indirectly into the juvenile and adult criminal justice systems" (p. 1).

Researchers have proven that students who are "excluded from school are less likely to complete their high school education and more likely to become involved in the juvenile justice system" (Kafka, 2011, p. 126). We have previously argued that "when schools turn to the criminal justice system to respond to student behavior, that sets in motion a series of consequences for the student that dramatically change his or her life trajectory" (Educator Policy Innovation Center, March 2017, p. 38).

Most scholars use the terms school-to-prison pipeline or cradle-to-prison pipeline to account for the racists systems built to channel people of color, especially Black people, out of society and into prisons. However, we also recognize the work of scholars, like Lizbet Simmons, who challenge this term because "the disciplinary dynamic in schools is neither so linear nor so unidirectional as the pipeline analogy would suggest. Schools and prisons do not sit on opposite sides of a metaphorical path, and the criminal justice system is not merely at the end of the pipeline—it is implicated all along the way" (Simmons, 2017, p. 4).
We believe that "to understand the relationship between racialized school failure and racialized incarceration, it is necessary to look beyond the surface of school disciplinary policy and examine the historical context of racial oppression" (Simmons, 2017, p. 5). Simmons (2017) reminded all educators and researchers that, "the social, political, economic, racial, and gendered dynamics at the root of these phenomena remain intact, in spite of efforts to dismantle the pipeline," so it is important to "pay attention to the underlying conditions in the campaign for educational equality" (Simmons, 2017, p. 5).

3. TRAUMA-INFORMED PRACTICES (TIP)

Trauma-informed practices refer to lenses of understanding rooted in the connections between childhood trauma and brain development. All trauma-informed practices build greater understandings of how adverse childhood experiences (ACEs) change levels of toxic stress in human beings. Educators and health professionals will use a TIP to understand how brain chemistry triggers both voluntary and involuntary responses in human beings.

Nadine Burke Harris, M.D., a leading scholar on ACEs and child development, has argued "when we understand that the source of so many of our society's problems is exposure to childhood adversity, the solutions are as simple as reducing the dose of adversity for kids and enhancing the ability of caregivers to be buffers."

Nadine Burke Harris, M.D., a leading scholar on ACEs and child development, has argued "when we understand that the source of so many of our society's problems is exposure to childhood adversity, the solutions are as simple as reducing the dose of adversity for kids and enhancing the ability of caregivers to be buffers" (Burke Harris, 2018, p. 211).

4. RESTORATIVE PRACTICES (RP)/RESTORATIVE JUSTICE (RJ)/RESTORATIVE SCHOOL (RS)

Restorative justice is not a program or field of study. Instead, it is a philosophy restorative practitioners use to approach the world. Restorative justice philosophy originated with North American Indigenous peoples, and it got a boost from successful implementation in the criminal justice system in the United States. Restorative practices are methods used to live in accordance with the principles of restorative justice.

Restorative practices offer schools and districts the opportunity to reimagine their thinking around discipline and justice. In a restorative setting, far greater attention is paid to community building and engaging all students and staff in the school community.

We have previously argued,

Restorative practices offer schools and districts the opportunity to reimagine their thinking around discipline and justice. In a restorative setting, far greater attention is paid to community building and engaging all students and staff in the school community. This is a paradigm shift from thinking about justice or discipline as a means of social control or a reaction to misbehavior to thinking about justice and discipline as mechanisms of building communities and teaching accountability. (Educator Policy Innovation Center, March 2017, p. 12)

Restorative justice is a way of being, restorative practice is a method used to live in accordance with restorative justice principles, and a restorative school is a place of learning staffed by qualified, trained restorative justice practitioners.

Image 5.1, from the Minnesota Department of Education, shows the importance community plays in the creation of a school community. For us, restorative justice is a way of being, restorative practice is a method used to live in accordance with restorative justice principles, and a restorative school is a place of learning staffed by qualified, trained restorative justice practitioners.

IMAGE 5.1: BASIC ELEMENTS OF A RESTORATIVE SCHOOL

RESTORATIVE SCHOOL

BUILDING COMMUNITY



Reproduced from (Beckman & Riestenberg, p. 11).

5. IMPLICIT BIAS

Implicit bias refers to the subconscious stereotypes and scripts about people, behaviors, situations, and environments that everyone carries. In education, educators may exhibit inconsistent use of certain behavioral interventions due to these subconscious biases. Educators' implicit biases may also contribute to discipline disparities.

Cook et al. (2018) have argued, "Implicit bias refers to discriminatory biases that operate outside of conscious awareness and attentional focus but nevertheless can result in inaccurate, unwise, or unjust responses toward particular individuals" (p. 136). They also confirmed, "research has shown that implicit biases render people's decision making vulnerable and can produce behavior that departs from a person's endorsed beliefs" (Cook, et al., 2018, p. 136).

Researchers with the American Bar Association (ABA) (2018) synthesized several studies on implicit biases and reported:

- Implicit biases are measurable by social psychology and neuroimaging.
- Implicit biases are "pervasive."
- Implicit biases are different from what we self-report.
- Implicit biases may "become activated automatically, without a person's awareness or intention, and can meaningfully influence people's evaluations and judgments."
- Implicit biases are often dissociated from what a person actively and honestly believes or endorses.
- Implicit bias may cause a person to believe some youth are more threatening than others.
- Implicit biases can cause misremembering. (Task Force on Reversing the School-To-Prison Pipeline, 2018, pp. 16-17)

"Even individuals who profess egalitarian intentions and try to treat all individuals fairly can still unknowingly act in ways that reflect their implicit—rather than their explicit—biases."

Everyone has implicit biases. Staats (2015) has noted, "even individuals who profess egalitarian intentions and try to treat all individuals fairly can still unknowingly act in ways that reflect their implicit—rather than their explicit—biases." She also commented:

the unwavering desire to ensure the best for children is precisely why educators should become aware of the concept of implicit bias: the attitudes or stereotypes that affect our understanding, actions, and decisions in an unconscious manner. Operating outside of our conscious awareness, implicit biases are pervasive, and they can challenge even the most well-intentioned and egalitarian-minded individuals, resulting in actions and outcomes that do not necessarily align with explicit intentions. (Staats, 2015)

"Implicit biases are pervasive, and they can challenge even the most well-intentioned and egalitarian-minded individuals, resulting in actions and outcomes that do not necessarily align with explicit intentions."

All educators must start by taking inventory of their own biases. It is also important to remember, "Initial research has indicated that brief training in awareness of implicit biases and use of alternative strategies can reduce the effects of implicit bias" (as cited by Cook, et al., 2018, p. 136).

6. DISPROPORTIONALITY

"African-American students comprised only sixteen percent of the student population during the 2011-2012 school years, but they represented thirtytwo percent of students who received an in-school suspension; thirtythree percent of students who received one out-of-school suspension; forty-two percent of students who received more than one out-of-school suspension; and thirty four percent of students who were expelled" (Task Force on Reversing the School-To-Prison Pipeline, 2018, p. 6).

We measure the discipline gap by looking at the "difference between a group's representation in the population at large and its over or under representation in specific areas" (Task Force on Reversing the School-To-Prison Pipeline, 2018, p. 6). Researchers with the ABA (2018) clarified the meaning of disproportionately by writing:

African-American students comprised only sixteen percent of the student population during the 2011-2012 school years, but they represented thirty-two percent of students who received an in-school suspension; thirty-three percent of students who received one out-of-school suspension; forty-two percent of students who received more than one out-of-school suspension; and thirty four percent of students who were expelled. During that same time frame, African-American students represented twenty-seven percent of the students who were referred to law enforcement, and thirty-one percent of students who were subject to a school-based arrest. In addition, although African-American children represented eighteen percent of preschool enrollment, they represented forty-eight percent of the preschool children who received more than one out-of-school suspension. (p. 6)

The ABA (2018) researchers also pointed out that we often discuss this term in relation to African-American students but "the problem is not limited to this group. Operative variations and disproportionalities exist within each broad category and across geographical areas" (Task Force on Reversing the School-To-Prison Pipeline, p. 6). Scholars have not studied disproportionality in discipline referrals among other demographic categories as much as they have for Black students. Scholars have also given even less attention to the intersectionality of demographic categories. For example, we know very little about how disproportionality harms Black students who identify as lesbian or Native American students with disabilities.

Defining the Discipline Gap: A Look at National and Statewide Statistics

Lawmakers need to stop the unequal use of behavioral interventions that remove students from schools and harm communities.

In 1975, the Children's Defense Fund became one of the first organizations to draw attention to the disproportionate use of exclusionary interventions with students of color (Children's Defense Fund, 1975). From that point, scholars and activists have continued to confirm this disparity in a litany of federal reports, agency briefs, advocacy papers, and social scientific, peer reviewed research studies. Unfortunately, some organizations, and political leaders, still refuse to accept the fact that students of color, students with disabilities, and LGBTQ+ students receive a disproportionate number of exclusionary interventions. However, the data is not on the side of these misguided groups and leaders. Lawmakers need to stop the unequal use of behavioral interventions that remove students from schools and harm communities.

"Research on student behavior, race, and discipline has found no evidence that African-American over-representation in school suspension is due to higher rates of misbehavior."

In what follows, we present a brief synthesis of research about the disproportionate use of exclusionary interventions. We have cited many of these studies in other publications, but we have also provided new data released after the publication of our previous report. The Office of Civil Rights (OCR) within the U.S. Department of Education is the federal department tasked with tracking data related to school discipline disparities. In March 2018, researchers with the United States Government Accountability Office (GAO) provided an analysis of data supplied in the most recent OCR report from the 2013-2014 school year. In what follows, we point to this most recent data from the federal government. We will also indicate when an author we cite uses a different data set and offers different statistics.

In addition, we want to begin with one important fact about research related to disproportionality in the use of exclusionary interventions. Students of color, LGBTQ+ students, and students with disabilities receive unequal numbers of punitive punishments, but there is no evidence that these demographics of students misbehave more than other students do.

As the department recently stated, quite emphatically and unambiguously, "in our investigations we have found cases where African-American students were disciplined more harshly and more frequently because of their race than similarly situated White students. In short, racial discrimination in school discipline is a real problem" (Task Force on Reversing the School-To-Prison Pipeline, 2018, p. 10)

Losen (2011) cited the work of Katherine Bradshaw of Johns Hopkins University and other researchers who have confirmed, "research on student behavior, race, and discipline has found no evidence that African-American over-representation in school suspension is due to higher rates of misbehavior" (pp. 6-7). In addition, researchers for the American Bar Association (2018) have also used data from the U.S. Department of Education's Office of Civil Rights and concluded:

Discipline and other disparities are based on race and cannot be explained by more frequent or serious misbehavior by minority students. As the department recently stated, quite emphatically and unambiguously, "in our investigations we have found cases where African-American students were disciplined more harshly and more frequently because of their race than similarly situated White students. In short, racial discrimination in school discipline is a real problem." Substantial empirical research corroborates the U.S. Department of Education's conclusion. (Task Force on Reversing the School-To-Prison Pipeline, 2018, p. 10)

Marginalized students receive harsher punishments that can lead to problematic life trajectories, but we have no proof that they misbehave at higher raters.

In what follows, we synthesize important findings about the racial discipline gap, the discipline gap for students with disabilities, and the discipline gap for LGBTQ+ students.

The Racial Discipline Gap: By the Numbers

GENERAL FINDINGS

Figure 5.1 illustrates federal statistics on how many demographic categories of students have experienced a disproportionate number of suspensions as compared to their total share of the overall national, student population. In addition, researchers have found:

- Students of color-particularly Black males-make up the largest proportion of students who receive exclusionary discipline (Cook, et al., 2018, p. 135).
- Black students in particular are disciplined more harshly for less severe and more subjective misconduct such as dress code violations, defiance, and disrespect, while White students are disciplined for more objective offenses such as vandalism or truancy (Cook, et al., 2018, p. 136).
- The GOA (2018) confirmed these findings and wrote, "Black students accounted for 15.5 percent of all public school students, but represented about 39 percent of students suspended from school-an overrepresentation of about 23 percentage points" (Government Accountability Office, 2018).
- Researchers have confirmed a racial bias that harms students of color in the way administrators and schools use suspensions and expulsions (Losen & Gillespie, 2012).
- School suspensions account for approximately one-fifth of Black-White racial differences in school performance (Losen & Whitaker, 2018, p. 4).

FIGURE 5.1: SCHOOL SUSPENSIONS RATES FOR CATEGORIES OF STUDENTS COMPARED TO SHARE OF STUDENT POPULATION

Students suspended from school compared to student population, by race, sex, and disability status, school year 2013-14. This chart shows whether each group of students was underrepresented or overrepresented among students suspended out of school. For example, boys were overrepresented by about 18 percentage points because they made up about 51% of all students, but nearly 70% of the students suspended out of school.



Reprinted from (Government Accountability Office, 2018, March).

Figure 5.2 also offers six bar graphs that provide a snapshot of how different types of disciplinary actions disproportionately affect various protected classes of students.

FIGURE 5.2: TYPE OF DISCIPLINARY ACTION AS DISPROPORTIONATELY ASSIGNED TO CATEGORIES OF STUDENTS

Representaton of students who received disciplinary actions compared to overall student population, by student race or ethnicity, school year 2013-14. This chart shows whether each race or ethnicity was underrepresented or overrepresented among students suspended out of school. For example, White students were underrepresented among students suspended out of school. For example, White students were underrepresented among students suspended out of school by approximately 18 percentage points, as shown in the chart, because they made up about 50% of the overall K-12 student population, but 32% of the students suspended out of school.



OUT-OF-SCHOOL SUSPENSION

Percentage point difference



IN-SCHOOL SUSPENSION

REFERRAL TO LAW ENFORCEMENT



Percentage point difference



EXPULSION

Percentage point difference

CORPORAL PUNISHMENT



SCHOOL-RELATED ARREST



Note: Disparities in student discipline such as those presented in this figure may support a finding of discrimination, but taken alone, do not establish whether unlawful discrimination had occurred. Source: GAO analysis of Department of Education, Civil Rights Data Collection. Reprinted from (Government Accountability Office, 2018, March, p. 14).

FINDINGS REGARDING BLACK MALE STUDENTS

- "Black males receive suspensions and office referrals at rates two to three times higher than their White peers" (Cook, et al., 2018, p. 136).
- "Young Black males are more likely to be suspended or expelled from schools than any other group" (as cited by Howard, Flenaugh, & Terry, Sr, 2012).
- Researchers with the U.S. government have confirmed "Black students, boys, and students with disabilities were disproportionately disciplined (e.g., suspensions and expulsions) in K-12 public schools" (Government Accountability Office, 2018).

FINDINGS REGARDING BLACK FEMALE STUDENTS

- The NAACP Legal Defense Fund (NLDF) and the National Women's Law Center (NWLC) (2014) recently reported:
 - "African American girls in urban middle schools had the fastest growing rates of suspension of any group of girls or boys."
 - African American females are more likely than other demographics to experience traumatic experiences at young ages.
- The researchers who conducted Minnesota's Adverse Childhood Experiences survey confirmed that girls of color report very high incidents of early trauma.
- NLDF and NWLC (2014) have argued that, "responses to African American girls' allegedly 'defiant' or 'bad' attitudes typically do not consider the lived experiences of African American girls and the underlying causes of the conduct at issue, including for some girls' exposure to trauma, violence, abuse, or other toxic stress" (p. 18).
- Black girls were suspended from school at higher rates than boys of multiple racial groups and every other racial group of girls (Government Accountability Office, 2018, p. 14).

FINDINGS REGARDING LATINX AND BLACK STUDENTS

Welch and Payne (2018) provided a synthesis of several studies in which researchers have concluded:

- "Black and Latino/a students experience more frequent and intense school punishments for the same or lesser offenses than their White peers" (Welch & Payne, 2018, p. 92).
- "Several notable studies chronicle the many ways in which students of color are subject to greater scrutiny, surveillance, and social control...mirroring trends seen in the criminal justice system" (p. 92).
- "Research clearly demonstrates that these racial and ethnic disparities in discipline are not justified by differences in misbehavior or delinquency" (p. 92).
- "Furthermore, minority students experience harsher school punishment regardless of other influences, such as economic disadvantage" (pp. 92-93).
- "Black and Latino/a students are much more likely than White students to receive office referrals for discipline... and be referred to law enforcement...Compared to White students, students of color are also suspended more often for the same or lesser offenses" (p. 93).
- "Expulsion, generally the most severe school penalty, is also more frequently assigned for violations by both Black students and Latino/a students" (p. 93).

FINDINGS ABOUT SEX AND DISPROPORTIONALITY

Figure 5.3 illustrates the sex-discipline gap in the use of suspensions.

- "Boys as a group were overrepresented, while girls were underrepresented among students disciplined" (Government Accountability Office, 2018, p. 15).
- "Boys accounted for just over half of all public school students, but were at least twothirds of students disciplined" (Government Accountability Office, 2018, p. 15).
- Disproportionality by sex "presented as early as preschool" (Government Accountability Office, 2018, p. 15).
- Black boys and girls are "the only racial group[s] [sic] for which both sexes were disproportionately disciplined" (Government Accountability Office, 2018, p. 14).

FIGURE 5.3: NATIONAL SUSPENSION RATES, DISAGGREGATED BY RACE AND SEX

Rates of out-of-school suspensions, by student race or ethnicity and sex, school year 2013-14.



Note: Disparities in student discipline such as those presented in this figure may support a finding of discrimination, but taken alone, do not establish whether unlawful discrimination had occurred. Source: GAO analysis of Department of Education, Civil Rights Data Collection. Reprinted from (Government Accountability Office, 2018, March, p. 15).

FINDINGS REGARDING PRESCHOOL STUDENTS

- "Disparities in discipline for Black students and boys appeared as early as preschool" (Government Accountability Office, 2018, p. 15).
- "Black students accounted for 19% of all public preschool students, but represented 47% of students suspended from preschool" (Government Accountability Office, 2018, p. 15).
- "Boys were 54% of all public preschool students, but 78% of those suspended from preschool" (Government Accountability Office, 2018, p. 15).

FINDINGS REGARDING STUDENTS WITH DISABILITIES

- The National Council on Disability (NCD) (2015) reported that "students with disabilities are more than twice as likely to receive an out-of-school suspension (13%) than students without disabilities (6%)" (p. 11). Also, students who qualify for services under the Individuals with Disabilities Education Act (IDEA) account for 25% of "school-related arrests" even though they represent only 12% of the public school population (NCD, 2015, p. 11).
- "Students who receive special education are only 12% of students in this country, but represent 19% of students expelled and 23% of students arrested in relation to school" (Casey, 2014).
- "Students with disabilities (special education and Section 504) represent 14% of students, but nearly 76% of the students who are physically restrained by adults in their schools" (Casey, 2014).
- "Schools suspend students with disabilities at rates that are typically two to three times higher than for their non-disabled peers" (Losen, Hodson, Keith, Morrison, & Belway, 2015, February, p. 6).

FINDINGS REGARDING LGBTQ+ STUDENTS

LGBTQ+ stands for lesbian, gay, bisexual, transgender, queer, and others. However, many researchers use different abbreviations for these communities. We report a researcher's findings with the abbreviation they use in their text.

- "Lesbian, gay, and bisexual (LGB) youth, particularly gender-nonconforming girls, are up to three times more likely to experience harsh disciplinary treatment by school administration than their non-LGB counterparts" (Mitchum & Moodie-Mills, 2014, p.2).
- "LGB youth are overrepresented in the criminal justice system; they make up just 5% to 7% of the overall youth population, but represent 15% of those in the juvenile justice system" (Mitchum & Moodie-Mills, 2014, p.2).
- "LGBT youth report significant distrust of school administration and do not believe school officials do enough to foster safe and welcoming school climates" (Mitchum & Moodie-Mills, 2014, p.2).
- "Recognizing that LGBTQ juveniles have higher health risks, a longitudinal study published in the *Journal of the American Academy of Pediatrics* found that, controlling for other variables, non-heterosexual youth were disproportionately subject to sanctions including school expulsion, police stops and arrests, and juvenile convictions, with girls more likely to suffer these differences than boys" (as cited by the Task Force on Reversing the School-To-Prison Pipeline, 2018, January, p. 62).

- The Gay, Lesbian, and Straight Education Network (2016) reported that:
 - "Nearly half of transgender students (45.2%) and students with another gender identity, i.e., those who were not cisgender, but did not identify as transgender or genderqueer (48.9%), had experienced discipline at school, compared to less than 40% of genderqueer (39.1%) and cisgender female (37.5%) and male (38.4%) LGBQ students" (p. x).
 - "Cisgender LGBQ students whose gender expression was nonconforming reported higher rates of school discipline: 41.8% compared to 35.6% of gender conforming LGBTQ cisgender youth" (p. x).
 - "LGBTQ students who were homeless were more likely to have experienced schoolbased discipline: 54.0% vs. 46.6% of those living with relatives and 38.5% of those living at a parent/guardian's home, perhaps due to challenges in attending school or completing schoolwork" (p. x).
 - "LGBTQ students who reported having an educational, emotional, or physical disability were more likely to have experienced school discipline: 47.8% compared to 36.9% of LGBTQ students without a disability" (p. x).

Students who do not receive suspensions or expulsions also experience diminished academic experiences simply by going to schools in which their peers receive these interventions.

We conclude this national picture by also noting that students who do not receive suspensions or expulsions also experience diminished academic experiences simply by going to schools in which their peers receive these interventions. For example, we have previously argued, and again draw attention to the work of Howard, Flennaugh, and Terry, Sr. (2012) who confirmed, "exclusionary interventions harm all students, not just suspended or expelled students" (Educator Policy Innovation Center, March 2017). In addition, Perry and Morris (2014) have warned that "high levels of out-of-school suspension in a school over time are associated with declining academic achievement among non-suspended students" (Perry & Morris, 2014, pp. 1082-1083). Punitive disciplinary measures harm all students, and lawmakers need to provide the resources to correct these troubling trends.

"High levels of out-of-school suspension in a school over time are associated with declining academic achievement among non-suspended students." Minnesota lawmakers should be ashamed of the fact that "one out of every five or six Black students is suspended, but only about one out of every forty White students" is suspended and there is NO PROOF that Black children misbehave at higher rates than White students

School Discipline Gaps in Minnesota

Minnesota's lawmakers should be aware that the disproportionate use of exclusionary practices does not improve when figures are broken down to state level data. Losen and Gillepsie (2012) confirmed that Minnesota ranked in the top 10 worst states for suspension differences between Black students and White students (p. 18). Minnesota lawmakers should be ashamed of the fact that "one out of every five or six Black students is suspended, but only about one out of every forty White students" is suspended and there is NO PROOF that Black children misbehave at higher rates than White students (Losen & Gillespie, 2012, p. 20). Also, Losen and Whitaker (2018) confirmed that Minnesota is in the top 10 states for worst disproportionality rates for suspensions and expulsions of Native American students (p. 8).

Minnesota's students cumulatively lost 106,913

days due to exclusionary interventions.

Recently, Losen and Whitaker (2018) released a study with the Center for Civil Rights at UCLA and the American Civil Liberties Union. These researchers are the first to report data based on "actual reports from nearly every public school in the nation" rather than estimates (Losen & Whitaker, 2018, p. 2). Losen and Whitaker (2018) have now provided, "vital information to parents, students, educators, advocates, researchers, policy makers and others interested in the impact of discipline disparities on educational equity and opportunity" (p. 2). According to their number, Minnesota's students cumulatively lost 106,913 days due to exclusionary interventions, and students of color, students with disabilities, and LGBTQ+ students carried more of that loss than other groups. Chart 5.1 draws from Losen and Whitaker's work and compares Minnesota's lost instructional time for students to national averages.

CHART 5.1: LOST INSTRUCTION TIME AS A RESULT OF EXCLUSIONARY INTERVENTIONS, MINNESOTA COMPARED TO NATIONAL TOTALS Lost DOI calculated per 100 students in the 2015-2016 academic year.

	MINNESOTA	NATIONAL TOTALS
Total lost DOI	106,913	11,360,004
All students (lost DOI)	12	23
Black students (lost DOI)	48	66
Native American students (lost DOI)	40	31
Pacific Islander students (lost DOI)	3	30
Latin(x) students (lost DOI)	16	17
White students (lost DOI)	6	14
Asian students (lost DOI)	3	4
Students with disabilities (lost DOI)	33	44
Students w/o disbailities (lost DOI)	9	20

DOI refers to "day of instruction." We obtained these figures from (Losen & Whitaker, 11 million days lost: Race, dicipline, and safety at U.S. Public Schools, Part 1, 2018, August, p. 8). Orange indicates that Minnesota is "among the 10 worst [states] for Native American students" in the disproportionate use of exclusionary interventions. (Losen & Whitaker, 11 million days lost: Race, dicipline, and safety at U.S. public schools, Part 1, 2018, p. 8). These figures were reproduced from (Losen & Whitaker, 11 million days lost: Race, dicipline, and safety at U.S. public schools, Part 1, 2018, p. 8)

In addition to Losen and Whitaker (2018), lawmakers should consider the most recent data from the Minnesota Department of Education's (MDE) (2018) *Dangerous Weapons and Disciplinary Incidents* report. MDE has most recently documented that:

- "The rates of disciplinary actions are disproportionate when compared to state race/ ethnicity demographic percentages: White students comprise 67.1% of all K-12 students enrolled and account for 41.7% of students disciplined, while non-white students make up 32.9% of all K-12 students enrolled but account for 58.3% of all disciplinary incidents" (p.7).
- "The highest rates of racial/ethnic disproportionality appear to occur for students who are Black (10.7% of all K-12 students enrolled and 32.9% of all disciplinary incidents) and American Indian or Alaskan Native students (1.6% of all K-12 students enrolled and 5.2% of all incidents)" (p. 7).
- "The discipline data also continue to show a disproportionality between state demographics and student's education type (general education, special education, 504 plan). Half of the K-12 students disciplined (50.9%) are in general education (84.8%), whereas students in special education comprise 13.9% of K-12 enrollment but account for 47.6% of students disciplined" (p. 7).

4. "Among students receiving special education services, students whose primary disability is reported as emotional or behavioral disorder account for 21.5% of disciplinary incidents" (p. 7).

MDE did indicate that "In 2016-17 there was a decrease in both the number of disciplinary incidents and the number of students suspended compared to 2015-16; however, the rate of disciplinary incidents and number of students suspended exceeds the rates observed in 2013-14 and 2014-15" (Minnesota Department of Education, 2018, p. 7). Thus, it would be short sighted to use that data blip to indicate the use of exclusionary interventions is decreasing across the state. In addition, we know that "disruptive/disorderly conduct/ insubordination" remains the most common incident type. That category accounts for 35.7% of incidents as compared to objective categories like tobacco use/possession (3%) or alcohol use/possession(1.1%) (Minnesota Department of Education, 2018, p. 9). Moreover, we know students are most commonly caught violating school rules in spaces where Education Minnesota's members work (classroom (45.1%) and hallways (22.2%) (Minnesota Department of Education, 2018, p. 12).

A student should not leave a school in handcuffs because he or she refused to remove a pair of headphones.

We draw attention to these numbers because out-of-school suspension and in-school suspension continue to be the two most common interventions offered to students. However, school districts/educators/administrators cite most students for a very subjective category of "disorderly conduct" which means throwing a chair in one school or failing to take out earbuds in another school. We believe most people would agree these are drastically different acts. We also believe most people would agree that different interventions are appropriate for these very different acts. A student should not leave a school in handcuffs because he or she refused to remove a pair of headphones.

Finally, Minnesota lawmakers should also give attention to the important work of the Minnesota Department of Human Rights (MDHR). MDHR has recently cited several charter schools and traditional public school districts for violating the Human Rights Act of the state because data shows these districts disproportionately suspend and expel students of color and students with disabilities. MDHR used discipline data from the 2015-2016 school year and confirmed:

- American-Indian students were 10 times more likely to be suspended or expelled than their White peers.
- African American students were eight times more likely to be suspended or expelled than their white peers.

- Students of color were twice more likely to be suspended or expelled than their White peers.
- Students with disabilities were twice more likely to be suspended or expelled than their peers without a disability (Minnesota Department of Human Rights, 2019).

These districts have the option to work with MDHR to correct these trends to prevent the department from pursuing legal ramifications. Most of the districts have agreed, and some are doing exciting and productive work. Commissioner Kevin Lindsey, under Governor Mark Dayton, initiated this important program, and we are excited that Commissioner Rebecca Lucero, appointed by Governor Tim Walz, will continue this work.

Adverse Child Experiences (ACEs) and School Climate

Educators need the opportunity to understand the relationship between toxic stress and brain development before they can begin the process of using restorative practices.

Several sections of this report have discussed the connection between toxic stress and student behavior. In particular, we point readers to the sections on full-service community schools, teacher preparation, and student support services. However, high ACE scores in children often account for large numbers of misbehaviors. Educators need the opportunity to understand the relationship between toxic stress and brain development before they can begin the process of using restorative practices.

As we have previously reported,

The Minnesota Department of Health (MDH) conducted an ACE assessment of the general population in 2011...In Minnesota, 55% of the population reports having one or more adverse childhood experiences. The most common are emotional abuse (28%), living with a problem drinker (24%), separation or divorce of a parent (21%), mental illness in the household (17%), and physical abuse (16%) (Minnesota Department of Health). Of those who have one or more adverse childhood experiences, 60% had two, and 15% have had five or more. (Educator Policy Innovation Center, March 2017, pp. 64-65)

We can use the MDH numbers to determine that "in an average class of 30 students, 16 to 17 will have had one or more adverse childhood experiences, and two to three have had five or more" (Educator Policy Innovation Center, March 2017, p. 68). We also know that some demographics, including Native American students, Black students, Latinx students, LGBTQ students, and special education students, carry some of the highest ACE scores to school

(Educator Policy Innovation Center, March 2017, p. 68). In fact, there are Level IV special education classrooms in Minnesota in which no student has an ACE score of 0.

Scholars with the Minnesota Department of Health (2013) have stressed, "Toxic stress strengthens connections in the parts of the brain that are associated with fear, arousal, and emotional regulation. Additionally, toxic stress negatively impacts the parts of the brain associated with learning and memory" (p. 9). Lawmakers need to realize that people with four or more ACEs are:

- 12 times more likely to attempt suicide.
- 5 times more likely to be beaten or raped.
- 10 times more likely to inject street drugs.
- 7 times more likely to be an alcoholic.
- 2 times more likely to have cancer.
- 2 times more likely to have heart disease.

*these numbers are from various sources at (Aces too High, 2014)

Minnesota students carry a lot of emotional trauma to school, and toxic stress produces fight, flight, and freeze responses in kids. These children are often unable to control these responses. Unfortunately, our behavioral intervention systems are designed to catch the student who "fights" (throws a chair, curses an adult), but they fail to catch students who move into "flight" (disappear from activities or school) or "freeze" (sit silently and move away from social and academic interaction with peers and teachers).

Minnesota students carry a lot of emotional trauma to school, and toxic stress produces fight, flight, and freeze responses in kids. These children are often unable to control these responses. Unfortunately, our behavioral intervention systems are designed to catch the student who "fights" (throws a chair, curses an adult), but they fail to catch students who move into "flight" (disappear from activities or school) or "freeze" (sit silently and move away from social and academic interaction with peers and teachers). As we have previously advocated, "it is time to make investments that will help curb the mental health crisis in Minnesota schools and classrooms" (Educator Policy Innovation Center, 2017).

Educators and administrators need trainings, now widely available, on the prevalence of adverse childhood experiences among our student population, the effects of that toxic stress on the brain, and what that toxic stress looks like in terms of student behavior.

Due to some groundbreaking studies conducted in the last 20 years, we know far more now about what is happening in the brains of many of our students who are mostly likely to exhibit problematic behaviors in school. Educators and administrators need trainings, now widely available, on the prevalence of adverse childhood experiences among our student population, the effects of that toxic stress on the brain, and what that toxic stress looks like in terms of student behavior. The Minnesota Adverse Childhood Experiences (ACEs) study, though conducted on the adult population, provides us with a clear picture of how many of our students have experienced adverse childhood experiences and which groups of our students are most likely to have high numbers of adverse childhood experiences.

The Process of Successfully Shifting to Trauma-Informed, Restorative Schools

Many detractors might cloud arguments about restorative justice by asking, "What about consequences?" Unfortunately, restorative justice, for some, has a reputation of letting students move through the world without facing consequences. This is a complete mischaracterization of restorative models. A restorative practitioner will include a student in the process of designing consequences and accountability measures. Restorative justice is a model in which students learn to repair relationships. It is new way of conceptualizing how students learn to make amends. In a restorative model, justice is "done with you" and "not to you."

Minnesota lawmakers need to provide the resources for all educators, which we define as all school staff working with public school children, to receive training in both traumainformed pedagogy and restorative practices. We mean every teacher, administrator, support professional, custodian, bus driver, and all other personnel. As we stated earlier:

- Trauma-informed practices provide a lens to understand behavior.
- Restorative justice is a way of being.
- Restorative practices are the methods used to live by the values of restorative justice.

Educators are best equipped to build equitable systems that meet the needs of their specific student populations. Legislators should provide financial resources for professional development and then allow educators to build systems of support.

We also want lawmakers to realize the following truths:

- Educators must consistently learn and retrain the practices and skills tied to living a restorative justice lifestyle. There is not a single curriculum to master or learn. A true restorative practitioner is constantly learning and improving his or her skills.
- 2. There are many types of restorative practices. Students in Bemidji, Minnesota will need different interventions than the students in Rochester, Minnesota. Educators are best equipped to build equitable systems that meet the needs of their specific student populations. Legislators should provide financial resources for professional development and then allow educators to build systems of support.
- 3. These philosophies and practices take time. Most experts predict it takes two to five years for schools to reap the benefits of an authentic restorative shift. Educators in Minnesota need the time to develop and build these systems. Lawmakers eager for quick data about results need to give educators the time to build sustainable systems.

Minnesota has the resources to build restorative schools. Marsh (2017) has defined the elements of RP culture change in school as moving through these steps:

- 1. Leadership
- 2. Community Building
- 3. Relationships
- 4. Whole School Buy-in
- 5. Community Agencies
- 6. Training
- 7. Sustainability
- 8. Time (p. 5).

All adults in a building must be on the same page and must hold mutual respect for each other. Image 5.2 provides a nice comparison of how a restorative school can change the day of a single child. Educators need the resources to build these schools for all students in Minnesota.

IMAGE 5.2: EXCLUSIONARY PRACTICES COMPARED TO RESTORATIVE PRACTICES



Reproduced with permission from AFT. Original image from: Restorative Practices: Fostering Healthy Relationships for Promoting Positive Discipline in Schools (2014). A report from the Advancement Project, the American Federation of Teachers, the National Education Association, and the National Opportunity to Learn Campaign. Retrieved from http://schottfoundation.org. Lawmakers should know that building restorative, trauma-informed schools is worth the investment. We already know our current systems are failing students and educators. We have previously noted that the districts who have implemented transitions to restorative practices have witnessed:

- A reduction in punitive disciplinary actions and problematic behavior over time.
- Greater respect for teachers and education support professionals across racial and ethnic groups.
- Fewer differences in the number of misconduct/defiance referrals issued to Asian/White and Latino/African-American student groups.
- Increased student connectedness.
- Improved student academic achievement (credit accrual and progression toward graduation).
- Improved school climate. (Educator Policy Innovation Center, 2017)

The St. Paul Public School District has started a very successful pilot project that can serve as a model for many other districts in the state.

Restorative schools have seen: a reduction in harmful and violent behavior, increased student respect for teachers and paraprofessionals, a decreased racial-discipline gap, increased student connectedness, improved school climate, and improved student academic achievement.

Researchers and advocacy organizations have also confirmed that restorative schools have produced gains for educators and students. Restorative schools have seen: a reduction in harmful and violent behavior, increased student respect for teachers and paraprofessionals, a decreased racial-discipline gap, increased student connectedness, improved school climate, and improved student academic achievement (Armour, 2014/2015), (Fronius, Persson, Guckenburg, Hurley, & Petrosino, 2016, February), (Gonzalez, 2012), (Gregory, Clawson, Davis, & Gerewitz, 2014), (Mirsky, 2003), (Suvall, 2009), and (Tyler, 2006). Minnesota should invest in these worthy school models to enhance the educational climate in all public schools.

Resources

Educators can seek several resources to start moving schools in the direction of restorative models. We provide a list of tools in our previous EPIC paper on this topic. We also encourage educators to use MDE's the Trainer's Guide for Working With Schools to Implement Restorative Practices. Finally, Education Minnesota members can seek professional development on these topics through their state union affiliate.

Proposed Solutions

Minnesota needs more trauma-informed, restorative schools in order to prevent the school discipline gaps from growing. Lawmakers should look to this list of solutions as a place to start:

SOLUTION #1: MINNESOTA LAWMAKERS SHOULD PROVIDE FUNDING FOR ALL ADULTS WORKING WITH STUDENTS TO LEARN TRAUMA-INFORMED SKILLS AND RESTORATIVE PRACTICES. DISTRICTS SHOULD ALSO RECEIVE MONEY TO TRANSITION ALL SCHOOLS TO A RESTORATIVE MODEL.

Minnesota lawmakers can look to California for examples and success rates. Washburn and Willis (2018) provided documentation that some of California's largest districts have made significant investments in restorative justice, such as:

- 1. Oakland Unified budgeted roughly \$2.5 million for restorative justice in the 2017-18 school year, which pays for 35 facilitators and a districtwide coordinator.
- The Los Angeles Unified School District budgets more than \$10 million annually for restorative justice and has a goal of implementing the practices in each of its more than 900 schools by 2020.
- 3. Following the lead of Los Angeles Unified, the San Diego Unified School District board last year approved a "School Climate Bill of Rights" that is centered on restorative practices. The board also approved a nearly \$800,000 budget for restorative justice in 2017-18, which pays for a district wide program manager along with several other staff members.
- 4. The Santa Ana Unified School District received a multi-year, \$3 million federal grant to implement restorative practices in schools throughout the district.

Minnesota schools will need enough time and money to transition away from exclusionary interventions and toward the full-scale adoption of restorative models. Lawmakers could further help with this transition by reducing class sizes and increasing school support staff.

SOLUTION #2: TRAIN ALL EDUCATORS, ESPECIALLY TIER 1 AND TIER 2 TEACHERS, IN RESTORATIVE PRACTICES AND TRAUMA-INFORMED SKILLS.

"Students attending schools with teachers who had more years of teaching experience had a lower risk of suspension, which suggests that students benefit from access to a more experienced teaching faculty."

Cruz and Rodl (2018) recently reported that "students attending schools with teachers who had more years of teaching experience had a lower risk of suspension, which suggests that students benefit from access to a more experienced teaching faculty" (p. 232). All teachers in Minnesota need ongoing professional development in trauma-informed, restorative practices. However, all laws must also provide resources for Minnesota's least experienced teachers, those individuals on a Tier 1 or Tier 2 license, to receive these trainings. Cruz and Rodl (2018) have documented that experienced teachers sometimes provide a safeguard against disproportionality. Unfortunately, most experienced teachers are not working with the students who are most affected by the school discipline gaps. Thus, all teachers need these important trainings.

SOLUTION #3: TRAIN ALL SCHOOL RESOURCE OFFICERS (SROS) AND SCHOOL LIAISON OFFICERS (SLOS) IN RESTORATIVE, TRAUMA-INFORMED INTERVENTIONS.

We find it unfortunate that schools are increasingly criminalizing student behavior and introducing students to the criminal justice system at early ages. However, we also know that SROs and SLOs are vital parts of several school communities across the state. Lawmakers should know that the Minnesota Department of Public Safety Office of Justice Programs has documented that 28% of public schools in Minnesota utilize SROs or SLOs, and we know that these schools are located in both the metro area and Greater Minnesota (Swayze & Buskovick, 2014, pp. 17, 21). In addition, Swayze and Buskovich (2014) found that of all SROs/SLOs in the state, "21% feel they are involved in the enforcement of school rules and code of conduct too much" (p. 45). Schools can correct this trend by transforming to restorative models.

SROs and SLOs working in schools must be part of the transition to restorative models if districts expect to see school climate improve.

As we previously argued, "Minnesota can benefit all students by helping to make alternative interventions a real option for 100% of all SLOs and SROs" (Educator Policy Innovation Center, March 2017, p. 21). Swayze and Buskovich (2014) reported that one respondent to their survey said, "if an SRO is not using some form of Restorative Justice, [sic] shame on them, their department and schools" (Swayze & Buskovick, 2014, p. 73). SROs and SLOs working in schools must be part of the transition to restorative models if districts expect to see school climate improve (Educator Policy Innovation Center, March 2017, p. 21).

SOLUTION #4: PROVIDE FUNDING FOR RESEARCH-BASED STRATEGIES THAT REDUCE EXCLUSIONARY PRACTICES AND HELP BUILD BETTER SCHOOL CLIMATES.

Minnesota lawmakers should provide funding to do the following:

- 1. Place a restorative coach in every school building.
- 2. Give educators the time to make restorative justice part of their curriculum and instruction.
- 3. Allow educators to access ongoing professional development to gain the skills needed to meet the needs of their students.
- 4. Develop systems that allow educators to seek restoration for secondary trauma they experience as caretakers.
- 5. Build sensory break areas to provide students with high levels of toxic stress a place to de-escalate.
- 6. Screen all students in Minnesota for ACEs.

SOLUTION #5: MINNESOTA LAWMAKERS SHOULD MANDATE THAT NO CHILD FROM BIRTH TO GRADE 3 CAN RECEIVE A SUSPENSION OR EXPULSION.

Many schools and districts have implemented similar policies. Researchers and educators agree that the use of exclusionary practices on young children is unacceptable. Lawmakers can seriously disrupt the school-to-prison pipeline by mandating this change.

Concluding Thoughts

Minnesota can end the school discipline gaps and interrupt the school-to-prison pipeline by building trauma-informed, restorative schools. Educators and students deserve the chance to learn and work in supportive and safe environments. Lawmakers need to provide the funding to make that possible.

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Teacher Preparation

Scholars and national stakeholders have long praised Minnesota for having both high professional standards for educators and high student achievement. At one time, Minnesota was committed to building and sustaining a professional, well-trained, and appropriately compensated teaching workforce to serve students. While those high standards correlated to high levels of overall student achievement, they did not serve to mitigate our achievement gap, which remains more than problematic; it is, in fact, devastating for thousands of children, their families, and the future of our communities.

Minnesota has now shifted from being among the states with the most stringent requirements for teacher licensure to being among the states with the lowest standards for teacher licensure. This has dramatic implications for Minnesota's students, especially students of color.

In 2017, Minnesota's state lawmakers made sweeping changes to our teacher licensure laws. Minnesota has now shifted from being among the states with the most stringent requirements for teacher licensure to being among the states with the lowest standards for teacher licensure. This has dramatic implications for Minnesota's students, especially students of color. Before these changes went into effect, it was our students of color, our special education students, and our students in high poverty districts who were most likely both to be taught by teachers teaching outside of their licensure area or without any license at all and to be in schools with the highest rates of teacher turnover. By creating a path to full, professional licensure without any teacher preparation at all, the Minnesota Legislature has all but guaranteed that the problem of inequity will become even more firmly entrenched.

By creating a path to full, professional licensure without any teacher preparation at all, the Minnesota Legislature has all but guaranteed that the problem of inequity will become even more firmly entrenched.

All Minnesota public school students deserve to be taught by teachers who have had robust pedagogical and content-specific training. We will not solve problems of inequity and teacher attrition by lowering standards and avoiding the policies and structures that cause these problems. Minnesota should require teacher preparation for all of its licensed teachers, and we should require that all Minnesota-approved teacher preparation programs meet minimum benchmarks for best practices.
Much of the conversation during hearings in the 2017 legislative session focused on the teacher shortage, and many lawmakers accepted without question the narrative that the only way to help districts hire when they have a hard time finding qualified applicants was to lower the requirements for teacher licensure. However, the narrative of the teacher shortage is largely a myth. It is true that districts have an increasingly difficult time finding fully prepared and licensed teachers when they post open positions. We have a critical and acute shortage of teachers of color. It is not true, however, that Minnesota has a teacher shortage overall. It is simply not true that the reason districts have a hard time finding fully prepared people to take teaching jobs is because it has become too hard to become a teacher in Minnesota. That myth was perpetuated at the Capitol with such regularity that too many adopted it as truth.

It takes roughly 63,000 licensed educators to fully staff Minnesota's public and charter schools. If we had a real teacher shortage, one might expect that we have fewer than 63,000 licensed teachers. But, in fact we have more than twice that number of already licensed teachers in the state right now. According to the most recent *Teacher Supply and Demand Report*, there are currently 133,945 people with active Minnesota teaching licenses (Wilder Research, 2019, p. 3). That number does not include people who only have a short-call substitute license. Because Minnesota once issued something called a lifetime license, it is important to also pay attention to the age of those 133,945 license holders. If we subtract from that number everyone over the age of 60 and roughly 10,000 people for whom no birthdate data is available, we get to 91,500. That is, there are over 91,000 people under the age of 60 who have active Minnesota teaching licenses in at least one specific licensure field. It takes 63,000 to fully staff our schools.

It is not a shortage of teachers that leads to districts being unable to find qualified applicants for jobs. We have more than enough licensed teachers already. But we do have a horrendous teacher attrition rate, a pattern that some are calling a mass exodus from the profession.

It is not a shortage of teachers that leads to districts being unable to find qualified applicants for jobs. We have more than enough licensed teachers already. But we do have a horrendous teacher attrition rate, a pattern that some are calling a mass exodus from the profession. One out of every three teachers leaves the profession in the first five years. That is an attrition rate unlike any other like field. We do not have a teacher shortage, except for our very critical shortage of teachers of color. We have a shortage of teachers who are willing to stay in the profession, given what we have done to the profession. Minnesota's shortage of teachers of color is one of the worst in the nation. Though our student population is made up of 33.5% students of color (identified as American Indian, Asian, Black, Hispanic, Hawaiian/Pacific Islander, and multiracial), only 4.3% of our teaching workforce is made up of teachers of color (Wilder Research in collaboration with the Professional Educator Licensing and Standards Board, 2019, p. 4). The percentage of students of color has been increasing steadily over time. The percentage of teachers of color has not. Further, teachers of color are leaving the profession at a rate 24% higher per year than their White counterparts (Ingersoll & May, 2016).

Minnesota's shortage of teachers of color is one of the worst in the nation.

Alternative routes to licensure that take massive shortcuts around the essential preparation all teachers need are not the answer. Structural racism has led to the achievement gap, and this 2017 statutory change gives teacher educators, lawmakers, and stakeholders a vital opportunity to begin the work of correcting the systemic inequities that pervade every aspect of Minnesota's civic and public life. Any new teaching preparation program in this state, Institute of Higher Education (IHE) based or non-IHE based, must train new teachers to be social justice educators committed to challenging systems of oppression and lifting up all students. Teacher preparation programs must be spaces dedicated to building equity-minded, culturally conscious educators.

Ingersoll and May (2011) outlined three reasons often cited for why the mismatch between teachers of color and students of color is detrimental. These include: 1) Demographic parity. This argument holds that "minority teachers are important as role models for both minority and White students." 2) Cultural synchronicity. This argument "holds that minority students benefit from being taught by minority teachers because minority teachers are more likely to have 'insider knowledge' due to similar life experiences and cultural backgrounds." 3) Candidates of color. "This argument holds that candidates of color are more likely than non-minority candidates to seek employment in schools serving predominantly minority student populations, often in low-income, urban school districts," which are the schools that suffer disproportionately from teacher shortages (Ingersoll & May, 2011, p. 11). Achinstein et al. (2010) cited the increasingly large body of research showing that teachers of color "can produce more favorable academic results on standardized test scores, attendance, retention, advanced-level course enrollment, and college-going rates for students of color than White colleagues" (Achinstein et al., 2010, p. 7). Many other scholars "contend that this demographic gap creates a teaching-learning disconnect that contributes to the too-often dismal academic performance, high dropout rates, and low graduation rates of diverse urban students" (Waddell & Ukpokodu, 2012, p. 16).

Burciaga and Kohli (2018), explained further what teachers of color bring to students. They bring "knowledge and skills cultivated by communities of color to resist and survive racism" (Burciaga & Kohli, 2018, p. 6). Minnesota needs to get serious about increasing the numbers of teachers of color in our teaching workforce, which will mean looking honestly at the structural racism inherent in our current school systems, and it needs to get serious about the teacher attrition problem overall, which is wreaking havoc on our districts and leaving too many students without teachers trained to meet their educational needs.

With that, we argue that all future teachers in Minnesota, the candidates from both traditional IHEs and those from alternative pathways, must receive quality training in:

- 1. content knowledge and content-specific methodology;
- childhood development, including social-emotional learning and trauma-informed practices;
- 3. structural racism, cultural responsiveness, and critical thinking in regard to the myriad ways in which our schools normalize and value whiteness;
- 4. classroom management, student behavior, and restorative practices;
- 5. the multi-faceted levels of assessment that can determine student success;
- 6. working with diverse students;
- the legal and pedagogical connections between special education and general education, including training on why students of color are over-identified as needing special education services;
- 8. actual instructional practice by having multiple, rigorous, and diverse clinical experiences;

History and research has shown that eliminating teacher preparation and certification requirements exacerbate, rather than eradicate, inequities.

Teacher Preparation and Student Academic Achievement

Yes, teacher preparation matters. Educators with proper training have better success in the classroom and produce higher achieving students as measured by academic assessments.

Research has shown for decades that teacher effectiveness has a strong effect on student outcomes.

Research has shown for decades that teacher effectiveness has a strong effect on student outcomes. Several peer-reviewed, academic scholars have confirmed that teacher effectiveness is one of the most important factors that improve student academic achievement (Sanders & Rivers, 1996; Wright, Horn, & Sanders, 1997; Jordan, Mendro, & Weersinghe, 1997; Darling-Hammond L., Teacher quality and student achievement: A review of state policy evidence, 2000). A properly trained teacher is more likely to improve academic achievement in his or her students.

Education researchers have also built a strong body of evidence to show that a lack of teacher preparation leads to negative outcomes for students. Unfortunately, improperly trained teachers usually end up working in schools that serve the most vulnerable students.

In addition, education researchers have also built a strong body of evidence to show that a lack of teacher preparation leads to negative outcomes for students. Unfortunately, improperly trained teachers usually end up working in schools that serve the most vulnerable students (Sanders & Rivers, 1996; Darling-Hammond L., Teacher quality and student achievement: A review of state policy evidence, 2000). Ashton (1996) has argued that states' efforts to reduce teacher certification requirements "no doubt contribute to students' academic failure" (p. 21). She has also stressed, "That these policies exacerbate inequities in the quality of education offered to low-income children in comparison to children from more economically advantaged homes. Teachers without regular certification are more often assigned to teach in schools with predominantly low-income children and children of color than are regularly certified teachers" (Ashton, 1996, pp. 2-3).

Teacher preparation matters. The best education systems in the world also have a strong, public commitment to building and sustaining a professional teaching workforce.

Mandatory Components for All Teacher Preparation Routes

Teaching candidates in Minnesota will now have the option to attend a traditional IHE based preparation program, or they can follow the alternative paths that will enter the marketplace. Some of these alternative pathways will be incomplete and cause more harm. Others will be better avenues for non-traditional and second career teaching candidates. However, we stress that all teaching preparation programs in this state, both the current programs tied to IHEs and the new alternative pathways, must embrace a critical race, equity lens and prepare future teachers for the demands of the profession. At minimum, there are seven core components, all rooted in an equity lens, that must be present in any successful teaching preparation program.

Content and content-specific pedagogy are interrelated and highly complex and they are critical components of teacher preparation. Teachers must know both subject matter and how to deliver that content knowledge to students.

COMPONENT #1: ALL TEACHING CANDIDATES NEED TRAINING IN CONTENT KNOWLEDGE AND CONTENT-SPECIFIC METHODOLOGY.

We concur with Grossman, Schoenfeld, and Lee (2005), who echoed the findings of multiple researchers when they asserted that "at a minimum, prospective teachers need a solid foundation in the subject matters they plan to teach and the requisite disciplinary tools to continue learning within the subject matter throughout their careers" (p. 206). Content and content-specific pedagogy are interrelated and highly complex and they are critical components of teacher preparation. Teachers must know both subject matter and how to deliver that content knowledge to students.

COMPONENT #2: TRAINING IN CHILDHOOD DEVELOPMENT, INCLUDING SOCIAL EMOTIONAL LEARNING AND TRAUMA-INFORMED PRACTICES.

An understanding of childhood development and childhood psychology are profoundly important tools for teachers. Researchers continue to learn about childhood development. Future educators must know the current research on childhood development, and they must be able to continue building on this knowledge. Understanding a variety of theoretical approaches to development, social emotional learning, and trauma-informed practice are vital elements of teacher knowledge and skill sets.

Child and adolescent development "is the most solid and substantial basis upon which to build curricular, assessment, and teaching skills . . . with child development as a common core of training" (Elkind, 1998, p. 186). Preparation programs must help future teachers develop understandings of brain development and student growth (Daniels & Shumow, 2002, p. 516).

> People of color interested in teaching are more likely than their White counterparts to identify social justice as a driving factor for their desire to teach.

COMPONENT #3 TRAINING ON STRUCTURAL RACISM, CULTURAL RESPONSIVENESS, AND CRITICAL THINKING IN REGARD TO THE MYRIAD WAYS IN WHICH OUR SCHOOLS NORMALIZE AND VALUE WHITENESS.

If we hope to move the needle on the number of teachers of color in Minnesota, both at the stage of recruitment and at the critical stage of retention, we have to acknowledge why they are not flocking to the profession already. And there is no shortage of data or research on this topic. People of color interested in teaching are more likely than their White counterparts to identify social justice as a driving factor for their desire to teach. And time and again, when teachers of color leave the profession, they cite an inability to change the structures that so disadvantage children of color. Burciaga and Kohli (2018) explained the complexity of inequity in our schools:

Research has demonstrated time and again that educational outcomes are intimately tied to structurally driven opportunities to learn (Boykin & Noguera, 2011; Oakes, 2005). For students of color, these opportunities are endemically inequitable. That is, students of color are more likely to be placed in schools that have fewer curricular resources (Burciaga, Perez Huber, & Solorzano, 2010), larger class sizes, and high teacher and administrative turnover (Orfield & Lee, 2005). Racial bias in teacher preparation and in schools also manifests itself by centering whiteness in a myriad of ways (Sleeter, 2017), including textbooks that privilege Eurocentric perspectives (Calderon, 2014), standardized tests that are 'normed to white, upper middle class performance' (Guinier, 2015, p. 20), pedagogies that negatively impact students' academic performance (Jacoby-Senghor, Sinclair, & Shelton, 2016), and punishments that feed the school-toprison pipeline (Simmons, 2016). [...]. Even desegregation efforts prioritized whiteness moving Black children to White schools and firing thousands of Black teachers. With such drastic neglect of the socio-historical factors that perpetuate inequitable educational conditions, and the normalization and mainstream nature of whiteness in schools—what Urrieta (Urrieta, 2010) calls 'whitestream'—it is no wonder we tend to prepare and support teachers based on White middle class notions of teaching and learning (Walker, 2009). (Burciaga & Kohli, 2018, p. 6).

Graduates of teacher preparation programs should know these dynamics, should be able to identify them in a school setting, and should be given strategies to be change agents throughout their careers.

COMPONENT #4: TRAINING IN CLASSROOM MANAGEMENT, STUDENT BEHAVIOR, AND RESTORATIVE PRACTICES.

One of the most fundamental tools any teacher needs from the first day is a solid background in classroom management and a deep understanding of student behavior and restorative practices. This area of training has a wildly disparate history in traditional teacher preparation programs. Alternative pathways to teacher preparation often ignored this topic. This is problematic for the students of Minnesota. A teacher with strong classroom management skills is more likely to be effective in classrooms.

One of the most fundamental tools any teacher needs from the first day is a solid background in classroom management and a deep understanding of student behavior and restorative practices.

In addition, Losen (2011), with the National Education Policy Center, has shown that there is clear racial inequity in the use of school suspensions and punitive interventions. Scholars now speak of "a growing racial discipline gap" for students of color (Losen, 2011, p. 5). There are ways to end this inequity, but it starts by training all future teachers in the best practices connected to classroom management, student behavior, and restorative practices.

All future teachers need to be prepared to use and understand student assessment data because this information is used for a variety of professional evaluation purposes.

COMPONENT #5: TRAINING IN ROBUST AND MULTI-FACETED ASSESSMENT.

All future teachers need to be prepared to use and understand student assessment data because this information is used for a variety of professional evaluation purposes. All training programs must help new teachers understand (1) formative and summative assessment used to both improve learning and determine grades or establish final scores (Shephard, et al., 2005, p. 297) and (2) prior knowledge assessments used to determine a student's knowledge of a subject.

In addition, teachers need to understand the harm that assessments can cause to students and student learning. Students can be internally motivated, seeking to master content. Students can also be externally motivated, seeking rewards. These two types of motivation can be very much at odds. The recent federal focus on high-stakes standardized tests have ushered in complaints about teachers "teaching to the tests," which is another way of saying that policy has lead us away from providing students with an environment that helps develop and nurture internal motivation to master content.

COMPONENT #6: TRAINING ON TEACHING DIVERSE STUDENTS.

The racial and ethnic diversity of children and families has increased in almost all states, including Minnesota. The vast majority of teachers across the country, however, are mostly White and middle class (United States Department of Education, 2016, p. 6). In addition to racial and socioeconomic diversity, families across the country are becoming more diverse in a wide variety of other ways. The number of students who are learning English as a second language has grown dramatically, as has the diversity in the range of academic abilities within classrooms (Banks, et al., 2005, p. 232).

There is "a national awareness about the disparity in academic achievement between students of color and White students (Burciaga & Kohli, 2018, p. 6). However, these disparities are often reasoned as inherent deficiencies and presented as immutable facts (Valencia, 2002).

Cultural differences between teachers and students have enormous and far-reaching implications for teaching and learning. A lack of understanding of students' cultural context can result in a misinterpretation of student behavior, leading to measurably higher rates of special education referrals and higher rates of inappropriate and unhelpful disciplinary interventions (Brown, Vesley, & Dallman, 2016). This happens because there is a dominant narrative which tells us that communities of color carry "inadequacies (e.g., lack motivation, value for education) that are attributed to race, poverty, culture, or inadequate socialization from home" (Burciaga & Kohli, 2018, p. 6). In fact, a study by Sleeter (2017) found that teachers were more likely to cite student and family deficiencies instead of reflecting upon their own deficit-oriented beliefs about students of color (Sleeter, 2017).

A lack of understanding of students' cultural context can result in a misinterpretation of student behavior, leading to measurably higher rates of special education referrals and higher rates of inappropriate and unhelpful disciplinary interventions.

With an "'it's not me, it's the students' mindset, teachers absolve themselves of their responsibilities as educators. As such, our schools mirror society by operating as color-blind meritocracies in which cultural differences can be read as deviance from whitestream norms and values" (Burciaga & Kohli, 2018, p. 6).

It is imperative that all teacher candidates must begin what needs to be an ongoing, careerlong process of developing cultural competency before they begin their work as teachers (Brown, Vesley, & Dallman, 2016, p. 76). Culturally responsive teaching goes far beyond curriculum and methodology. As Banks et al. (2005) have explained, "Teachers need to be aware of...family and community values, norms, and experiences, so that they can help to mediate the 'boundary crossing' that many students must manage between home and schools" (p. 233). New Minnesota statute requires that licensed teachers complete training in cultural competency for every stage of licensure renewal. The Professional Educator Licensing and Standards Board (PELSB) has adopted rules that define that training as one that, at a minimum,

promotes self-reflection and discussion including but not limited to all of the following topics: racial, cultural, and socioeconomic groups; American Indian and Alaskan native students; religion; systemic racism; gender identity, including transgender students; sexual orientation; language diversity; and individuals with disabilities and mental health concerns. Training programs must be designed to deepen teachers' understanding of their own frames of reference, the potential bias in these frames, and their impact on expectations for and relationships with students, students' families, and the school communities. (Professional Educator Licensing and Standards Board, 2019)

Clearly, there is an expectation by the state that teachers be involved in deepening their awareness of cultural issues, their own biases, and how those biases affect their interactions with students throughout their careers. Such training should begin in teacher preparation programs. Preservice teachers need robust training about diverse students in order to begin this critical work.

COMPONENT #7: TRAINING ON THE LEGAL AND PEDAGOGICAL CONNECTIONS BETWEEN SPECIAL EDUCATION AND GENERAL EDUCATION, INCLUDING TRAINING ON WHY STUDENTS OF COLOR ARE OVER-IDENTIFIED AS NEEDING SPECIAL EDUCATION SERVICES.

All preservice teachers need better training in the area of special education. Darling-Hammond, Wei, and Johnson (2009) studied graduates of traditional teacher preparation programs and found that only "60-70%...felt well prepared to meet the needs of special education students and students with limited English proficiency" (p. 630). Traditional preparation programs tied to IHEs struggle to prepare new teachers for the challenges of working with special education students. We worry that accelerated alternative pathway programs will fail at even greater rates when it comes to preparing future teachers to work with special education students. New teachers need training in (1) accommodations and modifications, (2) the legal requirements of an individual education plan, and (3) the connections between socioemotional learning and disability categories.

We echo the work of scholars like Miller (1991) who have long championed the important fact that "special education and regular education should not be two separate systems, but should be integrated to provide the best possible services for the benefit of all children" (pp. 19-20). New teachers need training in (1) accommodations and modifications, (2) the legal requirements of an individual education plan, and (3) the connections between socioemotional learning and disability categories. Preservice teachers need training in these areas; they do not need to learn "on the job" while working with Minnesota's special education students.

Preservice teacher training should include a critical look at the problem of the over-identification of students of color as needing special education services in exclusive settings.

Further, preservice teacher training should include a critical look at the problem of the overidentification of students of color as needing special education services in exclusive settings. The federal mandate that students be taught in the least restrictive environment depends on trained educators who know developmental, cultural, and trauma-informed norms for the populations they are serving. The lack of teacher preparation coursework in existing programs is correlated to the over-identification of students for exclusive special education settings. Attempting to solve the problem of the "shortage" of special education teachers by requiring even less preparation—in fact, by requiring none—is the antithesis of a logical approach to this problem. Address the needs of teachers so that there is no longer a critical shortage of special education teachers, but maintain high standards for the educators doing that work.

COMPONENT #8: CLINICAL EXPERIENCE TIED TO THEORY AND BUILT ON COLLABORATION.

The clinical experience for preservice teachers is so critical that it needs to be both intensive and extensive. Multiple clinical settings can give preservice teachers a much more diverse set of tools and experiences, and a substantial commitment of time is critical if we aim to create the collaborative relationships necessary for growth and learning. Banks (2014) calls for field experiences that "allow teacher candidates to apply their pedagogical content knowledge in a variety of settings" (p. 62). In Darling-Hammond's (2006) study of seven teacher preparation programs that are outperforming most others, one of the common characteristics was not just that the clinical experiences were carefully integrated with the curriculum, but it was also that the clinical experience itself was extensive—30 weeks or longer.

> Given the fact that 96% of Minnesota's teachers are White, and that well over 30% of Minnesota students are students of color, it is imperative that teacher candidates' clinical experiences include time in schools with diverse students.

Given the fact that 96% of Minnesota's teachers are White, and that well over 30% of Minnesota students are students of color, it is imperative that teacher candidates' clinical experiences include time in schools with diverse students. Some teacher preparation programs, such as those at Winona State University, already hold methods classes in actual K-12 buildings. This is a great start, and we hope to see more programs follow their lead. But Minnesota also needs to get serious about helping teacher preparation programs and K-12 schools develop better partnerships so that teacher candidates can have student teaching experiences at a variety of schools serving a variety of student and family demographics.

Proposed Solutions

Minnesota needs to seize this opportunity and protect future students. This will require:

- Closing the loophole in Minnesota's tiered licensure system that allows a candidate to attain a Tier 3 license without having completed teacher preparation.
- Providing financial support and other resources to Tier 1 and Tier 2 teachers to move through teacher preparation programs.
- Investing resources in higher quality and collaborative relationships between teacher preparation programs and school districts, so that teacher preparation programs can be better integrated in K-12 schools and so that student teachers placements reflect rich and diverse experiences.
- Fully funding public institutions of higher education in the form of subsidizing free/ affordable college education, tuition tax relief, and education debt relief.
- Increasing teacher salaries to incentivize long-term commitments to our most diverse and impoverished schools.
- Building more grow-your-own programs, such as the University of Minnesota's MNGOT program, that provide education support professionals quality pathways to become licensed teachers. New programs should include viable paths to licensure for ESPs who do not yet have bachelor's level degrees. Our own Minnesota State is perfectly situated to develop these programs in partnership with K-12 districts.
- Supporting research about how Minnesota teacher preparation programs can achieve better results for a diverse demographic of teacher candidates.
- Expanding the Minnesota Teacher Loan Repayment Program by providing adequate funding and broadening eligibility requirements to include school counselors, school nurses, school social workers, school psychologists, speech language pathologists, school-based occupational therapists, and other support personnel.

Our children deserve more than cheap-and-easy proposals that do not address the roots of the inequities and injustices in our education system. They deserve highly trained, skilled, and professional educators that will inspire them to be the creators of our new century.

Minnesota is at a critical juncture for our students. We must decide if our children—all of our children—deserve the best, most highly prepared educators or if they deserve less. Our children deserve more than cheap and easy proposals that do not address the roots of the inequities and injustices in our education system. They deserve highly trained, skilled, and professional educators that will inspire them to be the creators of our new century.

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Equitably Meeting the Needs of the Whole Child: Minnesota's Critical Need for Related Service Providers and Specialized Instructional Support Personnel

All students in Minnesota deserve safe, clean, appropriate, and equitable schools in which to grow and learn. Unfortunately, many students are not having their developmental needs met due to a lack of related service providers (RSPs) and specialized instructional support personnel (SISPs). Minnesota must provide the resources, so districts can build a robust workforce of SISPs and RSPs to help meet the needs of students.

Licensed and non-licensed support personnel

provide invaluable services in schools.

We know the phrase "support services" means much more than just hiring personnel. Schools and students also need support in term of space, community engagement, connections with other branches of local government, and more trainings for educators. We address many of these in other sections of this larger paper. However, licensed and non-licensed support personnel provide invaluable services in schools. Unfortunately, policymakers often overlook these important educators.

SISP and RSP staffing levels are a fundamental equity issue in Minnesota. This state has some of the largest racial opportunity gaps and student discipline gaps in the country. Schools with higher populations of students of color or larger concentrations of students with disabilities have some of the largest opportunity gaps, and they are often the same schools that lack enough RSPs and SISPs to help reverse these trends.

SISP and RSP staffing levels are a fundamental equity issue in Minnesota. This state has some of the largest racial opportunity gaps and student discipline gaps in the country. Schools with higher populations of students of color or larger concentrations of students with disabilities have some of the largest opportunity gaps, and they are often the same schools that lack enough RSPs and SISPs to help reverse these trends. All schools in Minnesota need more RSPs and SISPs, but many schools in certain parts of the state will need more personnel than others. We endorse the researchers with the National Commission on Social, Emotional, and Academic Development (2019) who argued:

Policymakers should account for the differing needs of students by weighting school funding formulas to provide more resources for students with greater needs, such as English language learners and students with disabilities...The distribution of resources should account for qualified educators, reasonable class sizes, ratios of counselors and other support staff to students, and health and mental health services. Policy leaders should evaluate the adequacy of resources in each community in relation to student needs as a basis for making investments. Balanced and equitable pre-K–12 learning ecosystems require balanced and equitable funding. (p. 59)

Minnesota lawmakers must tackle this problem with an equity mindset and provide all schools the direct resources they require to meet the needs of all students.

RSPs and SISPs help schools educate the whole child. These educators help children develop academic skills, communication skills, and socio-emotional skills. These skill sets, which we view as completely intertwined, are vital to the success of every student. Districts need adequate numbers of RSPs and SISPs to solve the equity issues facing the public school system. We build our case for providing the means to hire more RSPs and SISPs by explaining:

- 1. The roles and responsibilities of specialized instructional support personnel
- 2. The critical shortage of RSPs and SISPs in Minnesota
- 3. The equity crisis caused by the lack of RSPs and SISPs
- 4. The critical role RSPs and SISPs play in educating the whole child
- 5. The need to move beyond thinking about RSPs and SISPs in terms of ratios
- 6. Potential solutions for policymakers

Roles and Responsibilities of RSPs and SISPs

Several categories of educators fall into the categories known as related service providers and specialized instructional support personnel. In Minnesota, RSPs and SISPs are often, but not always, defined by educator licensure categories. This means Minnesota has five official categories of related service licensure areas, which include:

- 1. School psychologists
- 2. School social workers

- 3. School nurses
- 4. School counselors
- 5. Speech-language pathologists.

The term SISP refers to both RSPs and all other educators working in a non-classroom based service capacity. For example, occupational therapists and physical therapists carry a special education license in those specific areas of practice. However, state statute does not define those licensure areas as RSPs. These terms are merely technical, and we value the service of all educators falling under these larger categories.

Federal law provides further guidance on the types of educators considered SISPs. Specifically, Part B of the Individuals with Disabilities Education Act (IDEA) names the following professional areas as potential services for an Individualized Education Plan (IEP):

- Audiology services
- Counseling services
- Early identification and assessment of disabilities in children
- Medical services
- Occupational therapy
- Orientation and mobility services
- Parent counseling and training
- Physical therapy
- Psychological services
- Recreation
- Rehabilitation counseling services
- School health services
- Social work services in schools
- Speech-language pathology services
- Transportation

Finally, we know there are several other categories of SISPs serving the students of Minnesota. Some of them include (but are not limited to): education support professionals (ESPs), behavioral interventionists, academic interventionists, music therapists, art therapists, media specialists, librarians, library media specialists, attendance staff, clerical staff, resource officers, foster youth services coordinators and liaisons, custodians, cafeteria staff, bus drivers, and community education directors. All of these individuals play critical roles in Minnesota schools. Every school needs a critical number of RSPs and SISPs to serve all students.

The public, and many classroom educators, are unfamiliar with the specific roles and responsibilities of RSPs and SISPs. These role descriptions are either a direct quote or our attempt to paraphrase a longer description from that category's professional organization. In Minnesota, these are some of the most common categories of RSPs and SISPs:

School counselors (SCs) are certified/licensed educators with the minimum of a master's degree in school counseling and are uniquely qualified to address the developmental needs of all students through a comprehensive school counseling program addressing the academic, career and personal/social development of all students (American School Counselor Association).

Speech-language pathologists (SLPs) work to prevent, assess, diagnose, and treat speech, language, social communication, cognitive-communication, and swallowing disorders in children and adults (American-Speech-Language-Hearing Association).

School psychologists (SPs) provide direct support and interventions to students, consult with teachers, families, and other school-employed mental health professionals (i.e., school counselors, school social workers) to improve support strategies, work with school administrators to improve schoolwide practices and policies, and collaborate with community providers to coordinate needed services (National Association of School Psychologists).

School-based physical therapists (SBPTs) design and perform therapeutic interventions, including compensation, remediation and prevention strategies and adaptations, focusing on functional mobility and safe, efficient access and participation in educational activities and routines in natural learning environments (American Physical Therapy Association, 2016).

School nurses (SNs) practice a specialized, professional nursing that advances the well being, academic success, and life-long achievement of students. To that end, school nurses facilitate positive student responses to normal development; promote health and safety; intervene with actual and potential health problems; provide case management services; and actively collaborate with others to build student and family capacity for adaptation, self-management, self-advocacy, and learning (School Nurse Organization of Minnesota).

School-based occupational therapy practitioners (SBOTs) use meaningful activities (occupations) to help children and youth participate in what they need and/or want to do in order to promote physical and mental health and well-being. Occupational therapy addresses the physical, cognitive, psychosocial, and sensory components of performance. In schools, occupational therapy practitioners focus on academics, play and leisure, social participation, self-care skills (ADLs or Activities of Daily Living), and transition/work skills (AOTA Workgroup of Leaders in State Departments of Education, 2017).

School social workers (SSWs) are trained mental health professionals with a degree in social work who provide services related to a person's social, emotional and life adjustment to school and/or society. School social workers are the link between the home, school, and community in providing direct as well as indirect services to students, families and school personnel to promote and support students' academic and social success (School Social Work Association of America).

All SISPs and RSPs serve the critical needs of Minnesota's students. It is time for lawmakers to provide the resources needed to support their efforts.

Education Support Professionals Working as Related Service Providers

In addition, many education support professionals (ESPs) assist licensed RSPs and SISPs with student interventions. Some of these include:

• **Speech-language pathology assistant:** A licensed speech-language pathologist may delegate duties to a speech-language pathology assistant...who has documented with a transcript from an educational institution satisfactory completion of either: (1) an associate degree from a speech-language pathology assistant program that is accredited by the Higher Learning Commission of the North Central Association of Colleges or its equivalent as approved by the commissioner; or (2) a bachelor's degree in the discipline of communication sciences or disorders with additional transcript credit in the area of instruction in assistant-level service delivery practices and completion of at least 100 hours of supervised field work experience as a speech-language pathology assistant student.

A speech-language pathology assistant may perform only those duties delegated by a licensed speech-language pathologist and must be limited to duties within the training and experience of the speech-language pathology assistant. Duties may include the following as delegated by the supervising speech-language pathologist: assist with speech language and hearing screenings; implement documented treatment plans or protocols developed by the supervising speech-language pathologist; document client performance; assist with assessments of clients; assist with preparing materials and scheduling activities as directed; perform checks and maintenance of equipment; support the supervising speech-language pathologist in research projects, in-service training, and public relations programs; and collect data for quality improvement.

• **Unlicensed assistive personnel:** These medical professionals work under the supervision of licensed school nurses. The National Association of School Nurses (NASN) has stated "that, where laws permit, unlicensed assistive personnel (UAP) can have valuable and necessary roles as assistants to school nurses."

ESPs may also work as occupational therapy assistants (OTAs) and physical therapy assistants (PTAs). These professionals assist licensed therapists with therapeutic interventions for students.

Finally, it is important to remember that not all RSPs in the categories of social worker and school counselor are licensed mental health professionals (LMHPs). This distinction is often lost in public debates about student mental health. According to the Mayo Clinic, "mental health providers are professionals who diagnose mental health conditions and provide treatment." In addition, the Mayo Clinic adds, "licensing and services depend on the provider's training, specialty area and state law" (Mayo Clinic Staff, 2017). All school psychologists qualify as LMHP, but only school counselors and school social workers with training in counseling qualify as an LMHP. In addition, LMHPs do not prescribe medication or monitor the medical diagnoses of students. Only medical doctors can prescribe drugs intended to treat mental illnesses.

The Critical Shortage of RSPs and SISPs in Minnesota

Minnesota has a critical shortage of RSPs and SISPs. In all other sections of this paper, we have defined the educator shortage problem in Minnesota as an "attrition problem" rather than a recruitment problem. However, RSPs and SISPs are the potential exceptions to this rule. For example, educators holding one of Minnesota's five RSP licenses are actively working in positions that match their license. Unfortunately, many jobs across the state sit open because there are not enough licensed professionals to fill them.

Minnesota has a clear need for related service providers, but the state lacks enough educators to fill the open positions across the state.

Chart 7.1 shows the most recent data from the 2019 Minnesota Teacher Supply and Demand Report. All of the RSP categories exists within what the Professional Educator Licensing and Standards Board (PELSB) refers to as "license areas of most qualified teachers." This means high numbers of educators with these licenses are in roles attached to their actual licensure area, and they have gone through appropriate levels of training. PELSB (2019) predicted that these licensure areas fall into that category because they all have "additional requirements, licensure, and oversight from boards within their professional fields" (Wilder Research in collaboration with PELSB, January 2019, p. 5). Minnesota has a clear need for related service providers, but the state lacks enough educators to fill the open positions across the state.

LICENSURE AREA	# OF ACTIVE TEACHERS WORKING IN THEIR LICENSURE AREA	TOTAL # OF ACTIVE TEACHERS HOLDING LICENSE	PERCENTAGE USE
School nurse	615	616	99.8%
School psychologist	795	809	98.3%
Speech-language pathologist	1,846	1,890	97.7%
School social worker	1,249	1,284	97.3%
School counselor	1,316	1,455	90.4%

CHART 7.1: 2019 MINNESOTA SISP STATEWIDE LICENSURE USAGE

The American School Counselor Association recommends that schools should have one school counselor for every 250 students. Bad policies at the national and state levels have resulted in the national average being 1:482, but Minnesota's student to counselor ratio is one of the worst in the nation at 1:723.

Minnesota also consistently ranks near the bottom in national rankings of student-to-staff ratios for RSPs and SISPs in roles directly tied to student mental health. For example, the American School Counselor Association recommends that schools should have one school counselor for every 250 students. Bad policies at the national and state levels have resulted in the national average being 1:482, but Minnesota's student to counselor ratio is one of the worst in the nation at 1:723.

Counties with limited to no access to a school counselor were likely to be in rural settings, especially in western Minnesota. The Center for Advance Studies in Child Welfare (2016) recently reported:

- "Nearly one out of every five eighth-grade students in Minnesota was without access to a licensed school counselor at the student's school."
- "In one third of Minnesota's counties, the majority of eighth grade students were without access to a school counselor at the student's school."
- "Counties with limited to no access to a school counselor were likely to be in rural settings, especially in western Minnesota."
- "In addition, a greater proportion of students without access to licensed school counselors were Black or Native American and/or were eligible for free or reduced price lunch, as compared to the proportion of students who did have licensed school counselors" (Cronin, 2016).

It is unacceptable that so many Minnesota students move through school without access to a school counselor, school social worker, school psychologist, or a licensed mental health worker.

Lawmakers should also be appalled that many districts are circumventing this process by lending space to and contracting with LMHPs who provide services on site to the students with appropriate health insurance. However, these professionals are not licensed educators, are not under the jurisdiction of PELSB, MDE, or the district, and are not available for all students in a school. They also often displace the few LMHPs working full time in schools, and many districts see these individuals as a cheaper alternative to full-time staff. It is time for state lawmakers to take note of this problem and offer real solutions to put more counselors, psychologists, and social workers in schools.

"There's roughly one school nurse for every 4.7 school buildings serving students statewide. Put another way, that's roughly one fulltime, licensed school nurse for every 1,700 students in Minnesota — a ratio that places the state near the bottom, nationwide." Minnesota also falls near the bottom in student to staff ratios for other RSP and SISP licensure areas. Lawmakers should give particular attention to the following trends:

- Hinrichs (2018) has reported, "Across the state, teachers and other staff from secretaries to paraprofessionals are being asked to fill the role of a school nurse. State law requires that a district with 1,000 pupils or more employ at least one full-time-equivalent licensed school nurse. That allows for a lot of variability in how districts staff their health offices to meet students' health care needs...some don't have any licensed nurse on staff at all."
- Hinrichs (2018) has also confirmed, "Districts seeking middle ground have adopted a roving nurse model, where a licensed nurse travels between buildings in the district and other staff fill in when the nurse is not on site."
- Hinrichs (2018) reported the findings of the Minnesota Department of Health that, "there's roughly one school nurse for every 4.7 school buildings serving students statewide. Put another way, that's roughly one full-time, licensed school nurse for every 1,700 students in Minnesota – a ratio that places the state near the bottom, nationwide."
- Most staffing ratios lump school counselors, social workers, and psychologists into one category. This means the problem might be even more acute if researchers disaggregate the data by these separate licensure areas.

Minnesota lawmakers need to take a critical look at the staffing problems within related service fields in education. The current structures are preventing people from entering these professions, and it is harming all students, especially students with disabilities and students of color.

The Equity Crisis Caused by the Lack of RSPs and SISPs in Minnesota

All students are harmed by the lack of RSPs and SISPs, but Minnesota's students of color, students with disabilities, and LGBTQ+ students are disproportionately harmed by this labor shortage.

All students are harmed by the lack of RSPs and SISPs, but Minnesota's students of color, students with disabilities, and LGBTQ+ students are disproportionately harmed by this labor shortage. The National Commission on Social, Emotional, and Academic Development (2019) has stated:

Acquiring social, emotional, and cognitive skills is important for all students, but equity means acknowledging that not all students are the same. Students come to school with different experiences and access to opportunities that must be addressed to ensure all students have an opportunity to learn. Diminished access to housing, health care, and other basic needs, along with discrimination on the basis of any difference—whether race, faith, disability status, or family income—are major sources of stress that can interfere with healthy development and learning. These stressors are often compounded when low-income students and students of color also attend schools with fewer resources, more disruptions, lower expectations, and less-engaging learning experiences. (p. 31)

"Diminished access to housing, health care, and other basic needs, along with discrimination on the basis of any difference—whether race, faith, disability status, or family income—are major sources of stress that can interfere with healthy development and learning."

All school districts in Minnesota need more RSPs and SISPs. However, lawmakers and educators, must acknowledge that "providing equitable opportunities for developing young people socially, emotionally, and academically requires calibrating to each student's and school's individual strengths and needs, while ensuring that those with greater needs have access to greater resources" (p. 32).

Schools may be the only setting in which some students have access to medical care, mental health screenings, and nutrition guidance.

RSPs and SISPs provide the services that many students cannot access at home or through other familial connections. Schools may be the only setting in which some students have access to medical care, mental health screenings, and nutrition guidance. In addition, school counselors and social workers help "many students of color, first-generation and low-income students" navigate "the college application process." Many of "these students cannot always rely on their parents for college information and must instead turn to their high schools, where school counselors are in a position proven to increase access for students" (American School Counselor Association, 2018). Thus, the lack of counselors, social workers, psychologists, and nurses increases the inequities some groups already experience.

Finally, the lack of RSPs and SISPs is a growing crisis for students experiencing bullying. This is especially true for LGBTQ+ students in Minnesota. Researchers with the Gay, Lesbian, and Straight Education Network (GLSEN), in collaboration with other equity-focused groups, recently published information obtained from school mental health providers (SMHPs). These researchers found:

- Nearly eight in 10 SMHPs (78.1%) believed that bullying, name-calling, and/or harassment of students were serious problem in their schools. Bullying, name-calling, and/or harassment was the second most serious problem cited in their schools, after student behavioral, emotional, and mental health problems (cited by 84.4% of SMHPs).
- Nearly nine in 10 (88.5%) perceived that students were bullied at least sometimes based on their appearance (i.e., the way they look or body size), which was the most common reason reported.
- Approximately seven in 10 believed that students were bullied at least sometimes based upon their sexual orientation (73.9%) or gender expression (70.4%).
- More than six in 10 frequently heard students use the word "gay" in a negative way (68.5%) and make other types of homophobic remarks (62.2%) in their schools.
- Six in 10 (60.2%) frequently heard students make sexist remarks.
- Nearly half (47.4%) frequently heard students make negative comments related to gender expression, such as others not acting "masculine" or "feminine" enough. (GLSEN, ASCA, ACSSW, & SSWAA, 2019, p. xvii)

RSPs and SISPs help create and sustain emotionally and socially safe schools for all students. Minnesota needs to help build this workforce.

The Critical Role RSPs and SISPs Play in Educating the Whole Child

A hungry child will not be able to master fractions, and a student unable to read at grade level will often have declining self-esteem. Educators must target both the social and academic skills students need to live successful lives.

Education scholars have consistently argued that socio-emotional development, communication development, and academic development are not separate areas of learning. They are all part of educating the whole child. A hungry child will not be able to master fractions, and a student unable to read at grade level will often have declining self-esteem. Educators must target both the social and academic skills students need to live successful lives.

RSPs and SISPs are the educators that link academic and socio-emotional learning. Some of these professionals do provide mental health support for children, but they also provide preventive care and health-interventions. They are the educators that teach many students the important skills of self-expression. Some RSPs and SISPs may be the only adults offering students needed guidance on self-esteem and self-worth. Above all, these vital educators teach self-regulation, which requires a student to master "acquired, intentional skills involved in controlling, directing, and planning one's cognitions, emotions, and behavior" (Morrison, Ponitz, & McClelland, 2010, p. 203). RSPs and SISPs are vital parts of any successful school community.

Researchers with the National Commission on Social, Emotional, and Academic Development (2019) released important findings about social and emotional learning. They wrote:

- At least two-thirds of current and recent high school students agree that attending a school focused on social and emotional learning would help improve their relationships with teachers and peers, their learning of academic material, and their preparation for college, careers, and citizenship. (p. 11)
- Nine out of 10 teachers believe social and emotional skills can be taught and benefit students. Four in five teachers want more support to address students' social and emotional development. (p. 12)
- Ninety-seven percent of principals believe a larger focus on social and emotional learning will improve students' academic achievement. (p. 14)
- Eight in 10 employers say social and emotional skills are the most important to success and yet are also the hardest skills to find. (pp. 11-12)

Minnesota is in desparate need of more RSPs and SISPs to fill these important roles in the lives of students. In particular, Minnesota's RSPs and SISPs help students (1) bridge the language and emotional divide, (2) sustain physical health, and (3) confront mental health issues.

"Evidence from disparate areas of research converges to suggest that language and emotional development must be studied in terms of their mutual influences."

First, Minnesota's RSPs and SISPs help many students develop important skills tied to self-expression. Cole, Armstrong, and Pemberton (2010) have reported, "Evidence from disparate areas of research converges to suggest that language and emotional development must be studied in terms of their mutual influences" (p. 69). These researchers have argued, "Expressive language provides children with an additional, socially appropriate means of communicating about their needs, with enhanced ability to understand their own and others' emotional lives, and with an additional tool for regulating action" (Cole, Armstrong, & Pemberton, 2010, p. 69). Minnesota needs more educators trained in language and speech acquisition. The American Speech-Language Hearing Association (2019) has reported, "In 2014, the most prevalent disability category of children ages 3 through 5 served under IDEA, Part B, was speech or language impairments (43.7%)" (p. 6). The group also confirmed, "Speech or language impairments was the second or third most prevalent category for students ages 6 through 21 in every racial/ethnic group" (p. 6).

Scholars know that self-regulation is a "marker of adaptive development" (Morrison, Ponitz, & McClelland, 2010, p. 204). They have also determined, "Self-regulation also develops through early experiences and social interactions, in which caregivers and other significant individuals structure and shape children's trajectories" (Morrison, Ponitz, & McClelland, 2010, p. 204). RSPs such as speech-language pathologists and speech-language pathology assistants are the educators helping students learn self-regulation and expression. Every child in Minnesota deserves access to this category of trained professionals.

Second, RSPs and SISPs, especially LSNs, are the adults that help children learn to achieve and sustain strong physical health. They also provide the medical care many students need to be able to participate in all school activities. The National Association of School Nurses (2012), citing the work of several studies, has noted:

- Eight percent of all children have a food allergy, with almost 40% having a history of a severe reaction.
- In a survey of school epinephrine administration, approximately 25% had no previous food allergy diagnosis.
- Seven million children, have asthma, 9.4% of all children.
- More than 326,000 school children through age 15 have epilepsy.
- Thirteen to 18% of children and adolescents have some sort of chronic health condition, nearly half of whom could be considered disabled.
- Eighteen percent of 12–17 year olds and 14% of children ages 5–11 are on regular medication.
- An estimated 4-6% of all school-age children receive medication in school on a typical day.

Minnesota lawmakers should place at least one LSN in every school building in the state.

Unfortunately, a large number of schools, and many districts, do not have a single LSN. In many schools, clerical staff are authorized to administer medication, but this can lead to "medication errors" such as "missed doses, expired medication, and inconsistent recording" (National Association of School Nurses, 2012). Minnesota lawmakers should place at least one LSN in every school building in the state.

Minnesota's educators are struggling to stop the growth of a student mental health crisis in public schools. This is a crisis facing all corners of this state. It may manifest in different ways in different places, but it touches ALL communities.

Finally, RSPs and SISPs offer both preventive and therapeutic student mental health services. Minnesota's educators are struggling to stop the growth of a student mental health crisis in public schools. This is a crisis facing all corners of this state. It may manifest in different ways in different places, but it touches ALL communities. Rich, poor, rural, suburban, and urban students all report growing mental health issues. Lawmakers can review national and statewide trends to understand why RSPs and SISPs are crucial personnel needed to sustain health schools.

The National Alliance on Mental Illness (NAMI) has provided one of the most succinct national overviews of the student mental health crisis. Their organization reports:

- One in 5 children ages 13-18 live with a mental health condition.
- Eleven percent of youth have a mood disorder.
- Ten percent of youth have a behavior or conduct disorder.
- Eight percent of youth have an anxiety disorder.
- Ninety percent of students who died by suicide had an underlying mental illness.
- Suicide is the third leading cause of death in people ages 10-24.
- Fifty percent of lifetime cases of mental illness begin by age 14.

Considering these figures, it is easy to see how Minnesota schools without mental health personnel would face considerable obstacles. For example, if there was a high school in Minnesota that was a perfect cross-section of the national population, based on NAMI's figures, that school would have 88 students with a mood disorder, 80 students with a behavior or conduct disorder, and 64 students with an anxiety disorder. In a best-case scenario, that school would have 232 students with a diagnosed mental illness. Unfortunately, it is also very likely that this hypothetical high school would not have a social worker, counselor, or school psychologist.

The results of the Minnesota Adverse Childhood Experiences (ACEs) study provide another strong window into the various dimensions of the student health crisis in the state. As we reported in a previous EPIC paper (March 2017), the Minnesota Department of Health (MDH)

conducted an ACE assessment of the general population in 2011...In Minnesota, 55% of the population reports having one or more adverse childhood experiences. The most common are emotional abuse (28%), living with a problem drinker (24%), separation or divorce of a parent (21%), mental illness in the household (17%), and physical abuse (16%) (Minnesota Department of Health). Of those who have one or more adverse childhood experiences, 60% had two, and 15% have had five or more. (pp. 64-65)

Figure 7.1 presents the date from the MDH report. We can also take the MDH numbers to determine how ACEs might present in a typical Minnesota classroom of 30 students. We know from the MDH study that "in an average class of 30 students, 16-17 will have had one or more adverse childhood experiences, and two to three have had five or more. The data also show us that in many of our classrooms, specifically classrooms in high-poverty areas and those with high populations of American Indian, African-American, Hispanic, LGBTQ, and special education-identified students, the prevalence of high ACE scores is much, much higher" (Educator Policy Innovation Center, March 2017, p. 68).

"Toxic stress strengthens connections in the parts of the brain that are associated with fear, arousal, and emotional regulation. Additionally, toxic stress negatively impacts the parts of the brain associated with learning and memory."

Minnesota students come to school every day carrying traumatic experiences. Scholars with the Minnesota Department of Health (2013) have stressed, "Toxic stress strengthens connections in the parts of the brain that are associated with fear, arousal, and emotional regulation. Additionally, toxic stress negatively impacts the parts of the brain associated with learning and memory" (p. 9). Unfortunately, many Minnesota students with high ACE scores do not have access to educators with the expertise to help them learn to cope and recover from their past.

"School nurses are crucial to children's mental health. The top five health problems of children in the United States are now mental health problems not physical problems."

Mental health is also becoming a crisis requiring the expertise of LSNs as well. The National Association of School Nurses have argued, "School nurses are crucial to children's mental health. The top five health problems of children in the United States are now mental health problems not physical problems." The group also reported that "Twenty percent (20%) of students may have undiagnosed mental health problems that cause difficulty with academic work and "school nurses spend 32% of their time providing mental health services" (National Association of School Nurses, 2012). It takes a united effort on the part of all educators to help students develop the mental strength to confront past trauma and lead emotionally health lives.

In addition, many Minnesota students graduate and enter higher education institutions that are also lacking in mental health professionals. New (2017) reported, "The mental and emotional health of students has been of increasing concern to colleges in recent years, even as many institutions struggle to find the resources to better address those concerns." National studies have confirmed that "at colleges with enrollments of 1,501 to 2,500 students, directors reported an average of eight weeks per year in which waiting lists were used. At colleges with enrollments of 25,001 to 30,000, waiting lists were used an average of students on waiting lists exceeded 50, and the average was as high as 70 for institutions with enrollments of 30,001 to 35,000" (New, 2017). Minnesota's public higher education institutions also need the resources to meet the mental health needs of their students.

Minnesota students carry a lot of emotional trauma to school. We cannot expect educators to correct all mental health problems in the state, but public educators may be the only chance some students have to access help. It is time to make investments that will help curb the mental health crisis in Minnesota schools and classrooms.



FIGURE 7.1: PREVALENCE OF INDIVIDUAL ACES IN THE POPULATION OF MINNESOTA Prevalence of individual aces in the population of Minnesota.

Modified and reprinted from Minnesota Department of Health (2013, p. 2).

The Need to Move Beyond Thinking About RSPs and SISPs in Terms of Ratios

Staffing ratios for RSPs and SISPs are important benchmarks, not end goals.

Staffing ratios for RSPs and SISPs are important benchmarks, not end goals. Some advocates use ratios to fuel a problematic, quick-fix narrative. For that reason, we join the voices from organizations like the Minnesota School Social Workers Association (MSSWA) and the National Commission on Social, Emotional, and Academic Development who have pushed researchers and policy makers to move beyond ratios. In a recent public letter on this issue, leaders at the MSSWA wrote:

We recommend that educational agencies, professionals and decision makers move beyond using what we contend is an inaccurate "caseload/ratio approach" to recognizing the comprehensive range of workload activities that are performed by and required of SISPs to meet the social, emotional, physical health and academic needs of all students.

We absolutely believe the ratios set by professional organizations are important benchmarks to follow. However, we view ratios as a base-level standard for the state and not the end goal. MSSWA leaders have rightly noted that "the client" of contemporary SISPs is constantly evolving and may include "an individual student or group of students, a classroom, a teacher or group of teachers, an administrator, a family, the school system or the larger community" (Minnesota School Social Workers Association). One site or district may require a lot more nurses than is recommended by a professional organization because of a specific need in that region of the state.

Lawmakers should not deem a district "successful" for its ability to meet a ratio. We view meeting the direct needs of students within a specific school as the end goal for all districts and the state. All schools deserve at least one school nurse, but some schools may need three. By contrast, one school may need a lower social worker-to-student ratio than a neighboring school. There is not a one size fits all formula for every school in the state.

Potential Solutions for Policymakers

SOLUTION #1: HIRE MORE RSPs AND SISPs

Provide ongoing funding to hire more school counselors, school psychologists, and school social workers and properly compensate them. In addition, make sure there is at least one LMHP in every school building. Finally, do not treat SPs, SSWs, and SCs as interchangeable. These professionals provide very different services, and all schools need educators licensed in all three categories.

Minnesota should follow the student to staff ratios set by RSP and SISP national and state organizations as the starting point for all districts and schools, and lawmakers should provide more resources to districts that may need more staff than suggested. Those starting ratios are:

- School social workers to students
 - 1:250 for general education students
 - 1:50 for students with intense needs
- School counselors/psychologists to students
 - 1:250

It would take a total of approximately \$312 million to staff schools at the rate recommended by the ASCA. This price tag may seem high for some folks, but it is a bill that this state must pay now to stop the student mental health crisis.

It would take Minnesota approximately \$66 million to improve its counseling numbers to the national average, which is still below what experts recommend. It would take a total of approximately \$312 million to staff schools at the rate recommended by the ASCA. This price tag may seem high for some folks, but it is a bill that this state must pay now to stop the student mental health crisis. Mental health problems only get worse when schools do not have the staff to provide the appropriate interventions. This is especially true for students in Level IV special education settings.

SOLUTION #2: PROMOTE EDUCATOR COLLABORATION

Minnesota needs to allow districts to creatively "blend and braid" resources to meet student needs.

We endorse the recommendation from the members of the National Commission on Social, Emotional, and Academic Development (2019) who argued:

Too often, resources are not aligned and do not operate in a coherent fashion because of multiple funding streams, conflicting rules and regulations, and lack of coordination. Furthermore, resources are not always pointed at the most important supports and services. Most communities need investments to achieve a whole-child support system or infrastructure that can tie frequently siloed programs and initiatives together on behalf of young people and their families. There also are efficiencies that can be had by blending and braiding funds and services across schools and other child-serving agencies. This is an agenda for federal, state, and local policymakers. By pooling or combining schooland community-based resources across programs and funding streams, districts can reduce fragmentation, improve alignment with their goals, meet local needs, and better serve individual students. (p. 59)

Lawmakers must provide the resources educators need to build collaborative student support teams.

SOLUTION #3: PROVIDE TRAINING ON WORKING WITH LGBTQ+ STUDENTS

We support the call from the GLSEN (2019) to "increase funding to school districts for professional development activities for SMHPs, and ensure that sufficient funding is allocated to LGBTQ+-specific training."

Minnesota's LGBTQ+ students face hostile bullying. This means the LMHPs working as RSPs and SISPs need ongoing "training efforts related to LGBTQ students" so they "provide a stronger foundation for addressing issues of gender identity and expression among all students" (GLSEN, ASCA, ACSSW, & SSWAA, 2019).

Including LGBTQ+ in the new re-licensure course requirement for cultural competence can help raise awareness of these issues schoolwide. However, the need for specialists trained in dealing with the specific needs of this student group is high.
SOLUTION #4: SUPPORT PROFESSIONAL DEVELOPMENT OPPORTUNITIES

Equip the Minnesota Department of Education with the resources needed to help schools provide appropriate student support services. This includes consistent training for all educators on how to better use data and work as multidisciplinary teams to confront student needs. It will also require giving LEAs the resources to allow educators the time to implement these strategies.

The members of the National Commission on Social, Emotional, and Academic Development (2019) have stressed:

School improvement starts with data and allowing for team approaches. [Lawmakers should help] build the capacity of all educators to access, use, and share data to monitor the quality of learning environments, including the impact on student outcomes disaggregated by subgroup. This could include asset mapping, as well as training and support in how to interpret and use data to identify gaps in access and areas for improvement. (p. 19)

Lawmakers can and should empower MDE to help districts strategically tackle the specific problems facing their student populations.

SOLUTION #5: HIRE MORE SCHOOL NURSES

Ensure there is at least one licensed school nurse in every school in the state.

"A one-size-fits all workload determination is inadequate to fill the increasingly complex health needs of students and school communities" (National Association of School Nurses, 2017).

Minnesota needs to give critical attention to the lack of school nurses. The National Association of School Nurses (NASN) has recommended "one school nurse to 750 students in the healthy student population; 1:225 for student populations requiring daily professional nursing services; 1:125 for student populations with complex health care needs; and 1:1 for individual students requiring daily, continuous professional nursing services." The organization also echoed our concern that "a one-size-fits-all workload determination is inadequate to fill the increasingly complex health needs of students and school communities" (National Association of School Nurses, 2017). Unfortunately, Minnesota has yet to meet the ratios set by this group. Hinrichs (2018) quoted an expert in school nursing who called "Minnesota's 1,000 student minimum threshold...'one of the weakest in the nation.'"

- Appropriate school nurse staffing is related to better student attendance and academic success.
- In schools with a school nurse, a principal with gain an hour of worktime a day and teachers will earn an extra 20 minutes a day, on average, of instructional time.
- The presence of a school nurse improve immunization rates, vision correction rates, and identification of life-threatening conditions.
- A community saves \$2.20 dollars in health care procedures and parent time away from work for every dollar spent on school nursing.
- The presence of a school nurse has been correlated with prevention of excess medical cost and improved parent and teacher productivity.

A community saves \$2.20 dollars in health care procedures and parent time away from work for every dollar spent on school nursing.

School nurses help build healthy schools and communities. Minnesota needs more of these important educators.

SOLUTION #6: CREATE MORE GRADUATE PROGRAMS IN SPEECH-LANGUAGE PATHOLOGY

Minnesota lawmakers need to bolster graduate programs for speech-language pathologists. In addition, they need to help create more programs to train speech-language pathology assistants.

School districts are struggling to find enough licensed speech-language pathologists. Educators must obtain specialized, graduate-level training to earn a license in this field. Unfortunately, only a few schools in Minnesota offer the degrees needed to obtain this license. They are:

- Minnesota State University Mankato Department of Speech, Hearing and Rehabilitation Services
- Minnesota State University Moorhead Department of Speech-Language-Hearing Sciences
- St. Cloud State University Department of Communication Sciences and Disorders
- University of Minnesota Duluth Department of Communication Sciences and Disorders
- University of Minnesota Twin Cities Department of Speech-Language-Hearing Sciences

Faculty in these departments are limited in the number of students they can train each year. The state should provide resources to build more graduate programs in speech-language pathology.

SOLUTION #7: TARGETED INTERVENTIONS

Implement the following policy interventions:

- 1. Provide enough funding for all districts to have at least one occupational therapist and one physical therapist.
- 2. Pass statutes preventing RSPs and SISPs from being designated as proctors for the Minnesota Comprehensive Assessments.
- Provide districts with enough funding to provide preventive care. These programs could include:
 - a. Home visits
 - b. Collaboration with community agencies
 - c. Universal health screenings for all students conducted by trained professionals, not parent volunteers
 - d. Universal mental health screenings for all ninth graders
- 4. Provide funding streams dedicated to the services needed to comply with 504 plans for students.
- 5. Fund school psychologists with money not tied to special education. Many school psychologists cannot work with general education students because districts cover their salaries with federal or state special education dollars.
- 6. Provide funding to districts that allow RSPs to advance to higher steps and lanes on the salary schedule. SLPs, OTs, PTs, and LSNs can all command incredibly higher salaries in private medical practices. LSNs have more training than most other RNs. Districts need funding to ensure these professionals stay in school settings.
- 7. Provide funding to build a substitute workforce for RSPs. These educators do not receive substitutes when they take personal or medical leave. This means many students go without services if these educators are away from school. Districts need access to licensed, professional substitutes for RSPs.
- 8. Provide professional development money for all RSPs to meet the additional continuing education requirements set by their professional organizations. Some districts do not have the funding to help RSPs pay for these trainings and requirements. For example, newly licensed school social workers must obtain 200 hours of observation by another licensed social worker. Many school social workers pay for this out of pocket at a rate of \$60 to \$85 an hour. This amounts to approximately \$12,000 in out-of-pocket expenses for some school social workers.

Conclusion

The students of Minnesota deserve adequate support services. It is time for lawmakers to provide schools, educators, and communities with the resources they need to provide a quality education for all.

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Full-Service Community Schools

Community schools recognize that many factors influence the education of our children. This is why they work to mobilize the assets of the school and the entire community to improve educational, health, social, family, economic, and related results.

Community schools recognize that many factors influence the education of our children. This is why they work to mobilize the assets of the school and the entire community to improve educational, health, social, family, economic, and related results (Coalition for Community Schools, Community, 2018).

The full-service community school strategy is an educational equityfocused model that places the needs of students at the center of analysis and decision-making in school improvement.

The full-service community school strategy is an educational equity-focused model that places the needs of students at the center of analysis and decision-making in school improvement. The community school comprehensive needs assessment examines opportunity gaps and looks at systematic disparities affecting student achievement. By addressing disparities at the community level, community schools target the root causes of inequities affecting the public school system. Communities in Minnesota, including Brooklyn Center, Rochester, and Duluth, are successfully using this model as a strategy to tackle the achievement gap, and they are seeing results.

Minnesota needs to provide ongoing support–not just one-time grant money–for our community schools, and we need to invest in opportunities for more schools to adopt this model for equitable schools that can prepare students for success. A \$75 million state investment would allow every school currently identified in need of improvement under federal law to adopt the full-service community school model. As opposed to funding unproven, or even detrimental education reforms, Minnesota would make real progress in closing opportunity gaps by instead funding full-service community schools.

The goal of the community school model "is to improve population-level outcomes across the cradle-to-career continuum through smarter data access and use, resource alignment, practice sharing, shared ownership and accountability, and policy changes" (Coalition for Community Schools, Strategic, 2018). Community schools do this by identifying the specific needs of students in the school and the needs of their families and others in the community. Then they bring together partners and people to meet those needs, so together, they can reduce barriers to student growth and achievement.

The Components of Full-Service Community Schools

Full-service community schools are foundational hubs for the entire community. Community school partners work to toward ensuring "children are ready to enter school; students attend school consistently; students are actively involved in learning and their community; families are increasingly involved with their children's education; schools are engaged with families and communities; students succeed academically, students are healthy—physically, socially, and emotionally; students live and learn in a safe, supportive, and stable environment; and communities are desirable places to live" (Coalition for Community Schools, Strategic, 2018).

Becoming a community school is not simply a matter of receiving additional funds, though these schools do need initial and ongoing investment in order to be successful. It is necessary that the staff at the school—administrators, licensed teachers, and paraprofessionals are willing to reorganize, often in dramatic fashion.

Becoming a community school is not simply a matter of receiving additional funds, though these schools do need initial and ongoing investment in order to be successful. It is necessary that the staff at the school–administrators, licensed teachers, and paraprofessionals–are willing to reorganize, often in dramatic fashion. It is also necessary to have buy-in from all of the stakeholders—the school board, the community, the superintendent, the staff unions, the parents, the students, and the educators. It is not an add-on to a traditional school model. It requires re-envisioning every aspect of the school, including building usage, communication structures, school governance, school committees, and more. In addition, it requires a commitment to ongoing assessment of needs and the willingness and ability to continually adapt to those needs. A community needs assessment might point to a critical need for mental health services one year, while five years later, that need might be diminished and replaced or eclipsed by new problems that the school can adapt to address, such as housing or immigration insecurity, domestic violence, food insecurity, and/or a growing need for vision and dental services.

Community schools are all different, because they are built and constantly adapted to meet the needs of their specific communities, and needs in one community are obviously different than those in another.

Community schools are all different, because they are built and constantly adapted to meet the needs of their specific communities, and needs in one community are obviously different than those in another. Work begins with a community-wide, comprehensive needs assessment. This needs assessment is for schools to use "to determine their level of engagement with community partners and to evaluate where they can increase and diversify relationships. It points to ways they can better serve students and families through engagement with community organizations" (Minnesota Department of Education, 2018). The Minnesota Department of Education includes a template needs assessment on their website, one that identifies ways in which a particular school could redesign itself to become a community center that does more than just educate students (Minnesota Department of Education, 2018). By identifying community needs and adapting the school to meet those needs, community schools "function as active agents of change in the lives of students, families, and their communities" (Coalition for Community Schools, Community, 2018, p. 5).

In some cases, community schools are providing easier access to services that families know about but can't access because of time or transportation shortages, and in others, they are providing access to services that families don't even know exist.

Once a needs assessment is completed, a community school identifies and recruits partner organizations that serve that school's students and families. This allows the school and its partners to better address the community's needs, harness its strengths, and coordinate program and service delivery. Typically, many of the partners will co-locate services at the school, which facilitates access to their services.

The importance of hosting critically needed family and community services on site in a school building should not be ignored. In some cases, community schools are providing easier access to services that families know about but can't access because of time or transportation shortages, and in others, they are providing access to services that families don't even know exist. Educators across Minnesota echo the same refrain: we can't do our work effectively by ourselves when children bring unmet needs with them to school.

Minnesota's existing full-service community schools offer examples of the differences outlined above. Brooklyn Center Community Schools, for example, exist as a response to a community needs assessment and to a constant cycle of re-assessment and adaptation. Instead of a traditional school model that offers two types of involvement for adults not on staff at the school, parent-teacher associations (PTA) and parent-teacher conferences, in Brooklyn Center, the following committees all serve a critical role:

- The Parent Advisory Committee
- The Parent Teacher Organization
- The Parent-Ambassador/Affinity Group
- The Community Education Advisory Council
- The District Wellness Committee

In addition to the more deeply engrained community involvement, the full-service community school model has made the following opportunities available for families in the community at its Community Corner and in the school buildings themselves:

- Small clothing closet.
- Panera bread on Friday mornings.
- Onsite, Early Childhood Family Education (ECFE) and Pre-K classes.
- Renters rights and responsibilities training.
- EmpowHer, a free life coaching and support group for moms.
- Hennepin County Multi-Cultural Services, which can assist with needs assessments, health insurance, and navigating county systems.
- Toys for Tots.
- Family Connection Nights regularly scheduled evening events at which families can enjoy a meal and monthly topic.
- Immigration and refugee services.
- Children's dental services.
- A health resource center that includes medical, sexual health education, vision, dental, mental health services and assistance with health insurance access, to youth of Brooklyn Center Schools and the surrounding community.
- Adult education.

In addition to many of the services offered in Brooklyn Center, Duluth's full-service community schools also offer support for homeless families through their Families in Transition program, school facility use to promote civic engagement, mentoring and other youth development opportunities, service learning opportunities, job training and career counseling, and programs that promote family financial stability.

Rochester community schools, again, in a response to data collected in their comprehensive needs assessment, offer adult learning, citizenship services, English language learning (ELL) services, and general education development (GED) services.

Student families play a critical role in both the development of a community school and the ongoing operation, evaluation, and adaptation of the school.

Student families play a critical role in both the development of a community school and the ongoing operation, evaluation, and adaptation of the school. Educators who work in community schools report that the deeper parental involvement at the core of a community school helps them become better educators. Parental involvement is one of the aspects of a community school that most stands out to Duluth teacher, Stacey Achteroff: "It is a way for parents to contribute ideas in a new and different way. Schools can be intimidating places for families" (Duluth Community Schools Collaborative, 2018). As Deb Showalter, another teacher in a Duluth community school, explains, "parents are the ones who spend the most time with their kids, and they know their kids the best, so they need to give us information that can help their children learn better and want to come to school" (Duluth Community Schools Collaborative, 2018). Yet another community school educator explains, "we benefit as educators by learning more about the families. And so as educators, we grow tremendously" (Duluth Community Schools Collaborative, 2018).

Equity is at the core of a community school model.

Equity is at the core of a community school model. Because the model builds a school and maintains a school that is designed to meet the specific needs of its students, even as those needs change over time, it is a model that offers a far more equitable experience for students than traditional schools. Aaron O'Leary, a teacher in a community school in Duluth, explains, "the question for schools is, what are we doing for some of our kids who have greater needs? What are we doing for our kids who struggle? Are we doing something that is lifting them up, or are we responding reactively? I have found since we have begun the community school model that there is a place for kids who struggle, and it is a place for success and growth and achievement, and for school to be something positive" (Duluth Community Schools Collaborative, 2018). For students and families to receive the greatest benefit from the model, several key groups must work together to examine needs and disparities, and work together to close opportunity gaps hindering academic achievement.

Evidence That Full-Service Community Services Work

More recently, a review of nine different community school programs found when implemented with fidelity to an evidence-based model, such approaches helped to narrow the achievement gap between low-income students and their peers (Child Trends, 2014).

Studies that examine the results from community schools are highly encouraging. A 2010 report found improvements in dropout and graduation rates, attendance, and academic achievement (Communities in Schools, 2010, p. 7). It is important to note that effects are greater for schools that follow the community school model with fidelity, that follow through with the continual process of assessment and adaptation to community needs, than they are for schools that follow the model with lower degrees of fidelity. More recently, a review of nine different community school programs found when implemented with fidelity to an evidence-based model, such approaches helped to narrow the achievement gap between low-income students and their peers (Child Trends, 2014). The models in the study focused on reducing barriers to learning, increasing chances for success in school and expanding positive student development opportunities. As the National Coalition for Community Schools pointed out, multiple independent studies have shown that at-risk students can thrive when their learning and developmental needs are addressed individually and they have the opportunities they deserve (Communities in Schools, Community, 2010).

A representative from one of the community partners in the Duluth Community School Collaborative described the reasons they remain committed partners:

The program and the model work. We see that the kids are doing better academically, behaviors are good, the students are reporting that they like school, they are learning, and they have a better connection with the school. The parents are talking about how the kids enjoy school, want to go to school, and behave better at home. (Duluth Community Schools Collaborative, 2018)

The Coalition for Community Schools identifies necessary criteria for a thriving community school. A community school's strategy creates the structure and culture needed to ensure fulfillment of the following six conditions:

- 1. Early childhood programs are available to nurture growth and development.
- 2. The school offers a core instructional program delivered by licensed teachers.
- 3. Students are motivated and engaged in learning—in both school and community settings before, during, and after school and during the summer.
- 4. The basic physical, mental, and emotional health needs of young people and their families are recognized and addressed.
- 5. Parents, families, and school staff demonstrate mutual respect and engage in effective collaboration.
- Community engagement, together with school efforts, promotes a school climate that is safe, supportive, and respectful and connects students to a broader learning community. (Coalition for Community Schools, Strategic, 2018).

As Melaville, Jacobson, and Blank (2011) explained, "public schools cannot create all of these conditions alone. But experience shows that vision-driven, results-based partnerships can. Such partnerships build relationships among schools and other sectors of the community with a vested interest in the well-being of children and families. Local government, United Ways, community-based youth development organizations, business, higher education, public and private health and social service agencies, neighborhood groups, civic and faith-based organizations, families, and residents are all involved" (Melaville, 2011).

FULL-SERVICE COMMUNITY SCHOOLS DIFFER FROM TRADITIONAL SCHOOLS IN THREE FUNDAMENTALS WAYS.

STRATEGIES	FULL-SERVICE COMMUNITY SCHOOLS	TRADITIONAL SCHOOLS	
Academics	Provide their students with a rich, rigorous curriculum that is culturally relevant, supports them in developing critical thinking skills, and offers them the opportunity for all students to explore a variety of subjects, far beyond those covered by standardized tests. Academic support and enrichment activities are offered after school hours for all students.	Curriculum during the school day and after school is shaped by the content of standardized tests, which often carry high stakes for students, teachers, and schools. Non-tested subjects like art, music, and sports, are diminished. There may be few after-school enrichment activities for all students.	
Community Engagement	Parents and community members are empowered to make decisions about how the community school will be run every step of the way. Partnerships between school leaders and community leaders are what make community schools work.	Real community engagement varies wildly in traditional schools, from not existing at all to some levels of parental involvement. Apart from parent/teacher conferences and the PTA, community members are excluded from school decision making.	
Social Services	Community schools provide a variety of services, from health care, to child care, to adult education, to arts and music. These programs are for the benefit of all. The school is the hub or center of its neighborhood.	The school building is closed mid-afternoon and is not used for other programs. Families may have to travel to access all of the social services they need, or those services may not be available at all.	

The Stages of Development: How to Grow a Full-Service Community School

There are four critical stages of community school development, the last of which is regular assessment and adaptation, so that a school is always in the process of re-evaluating its success and changing or adapting when and as needed.

1. EARLY ENGAGEMENT AND NEEDS ASSESSMENT

The first major step in adopting the community schools framework is examining opportunity gaps and assets of the school's community by way of a needs assessment. This includes gathering data and information about the many factors—health, housing, family employment, in-school services, curriculum—that can affect students' ability and willingness to learn in the classroom (The Center for Popular Democracy, 2018). Community engagement is vital at this stage, and each school must be proactive and creative in reaching out to families and community leaders who have previously faced barriers to engaging with the school. The assessment should also examine the school itself, considering factors such as school climate, discipline practices, academic enrichment opportunities, and cultural relevance of the curriculum.

When making sense of this information, participants should also look at the effects on different groups of students. This includes, for example, disaggregating data by race rather than only considering averages for the whole student population. Understanding the differences between student populations is critical to tailoring the appropriate strategy for the school.

2. IDENTIFYING COMMUNITY PARTNERS

Many communities in Minnesota already include organizations providing necessary services and building on existing strengths. These organizations can be either public or private. Many are often looking for new ways to reach the people they want to serve and work with. Partnering with schools provides these organizations a direct way to work with students and families. Community schools recruit and welcome groups whose work lines up with the priorities revealed by the initial community assessment.

Sometimes this takes the form of creating a permanent facility for a community partner within the school, for example, converting existing space into a mental health clinic, and at other times, it means bringing community partners in regularly to provide their services (Melaville, 2011). Ultimately, the goal is to ensure that the school's work with its community partners improves the ability of both to address the factors that interfere with student learning.

3. SITE COORDINATORS

The role of site coordinator is vital to the success of the framework at each school (Coalition for Community Schools, Strategic, 2018). Community schools often develop relationships with dozens of partner organizations, collect and analyze data from several sources, improve the provision of services the school already offers, and coordinate many staff members' activities. The site coordinator is the facilitator and overseer of this work, and as a result, the process of overseeing the community school's effort is a full-time job. Given the critical nature of the role of site coordinator, districts need to be aware of the skill set necessary for this work. An effective site coordinator is deeply familiar with both the school culture and its surrounding community.

4. REGULAR EVALUATION AND ADAPTATION

Also vital to the success of a full-service community school is the regular collection of data and information about the factors identified during the initial assessment, to track progress, and make appropriate changes (Melaville, Jacobson & Blank, 2011). Again, this information should be disaggregated wherever possible to gauge progress for students of color and students in poverty in the school. Adaptations, too, should reflect the needs of targeted student groups to ensure that the school is on a path to provide equity for all.

The full-service community school approach recognizes that achieving a universal goal may require the use of several different approaches and resources targeted to specific populations, such as ensuring translation services are available for families still learning English. Evaluating and adapting the programs and partnerships the school offers provides the highest level of effectiveness for all students.

Policy research and the experiences of educators, parents, and students in our own community schools in places like Brooklyn Center, Rochester, and Duluth point the way toward decreasing our achievement gap and increasing opportunities for our students across the state. Minnesota should be providing ongoing support for our existing community schools, and we should be investing in opportunities for more schools to adopt this effective model for schools.

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Public Higher Education in Minnesota

Minnesota's college students have borne the brunt of policy decisions made at the Minnesota Legislature over the past four decades. They now face tuition rates that have skyrocketed and graduate carrying higher and higher levels of student debt, debt that for many will not be paid off over the course of an entire career. The state's recent policy trend, one that leads to high tuition and high levels of aid in the form of increasing spending on the Minnesota State Grant Program, has hurt the students it was intended to help, and has increased debt loads and locked some of our neediest students out of college altogether. The myth that the Minnesota State Grant Program helps those who most need assistance needs to be challenged, and the State Grant Program needs to be recognized for what it is—a program that drives up tuition at our public institutions and doles out the largest grants to the students who least need assistance, while leaving those most in need of help with fewer and fewer options short of assuming massive amounts of student debt or forgoing college altogether.

Public Higher Education by the Numbers

APPROPRIATION

For over three decades, Minnesota ranked in the top 10 states in terms of per-student appropriations to higher education, before the Minnesota Legislature started to appropriate less and less of its budget to higher education in the 1980s and 1990s (Star Tribune Editorial Board, 2017). Minnesota was already well on its way to a massive disinvestment in higher education when the Great Recession hit, causing most categories of spending in the state's budget to shrink. Since then, higher education is one of the only categories of funding that has not bounced back, and instead, continues to decline (Star Tribune Editorial Board, 2017). In 1995, 12.2% of the state's budget was spend on public higher education. By 2011, that percentage dropped to 7.5% of the state's budget. Now, in 2018, higher education accounts for 4% of the state's overall expenditures (Minnesota Management and Budget, 2018). In just 23 years, the state has disinvested in higher education as a percentage of the total state budget by over 66%.

To understand the disinvestment in higher education more fully, we can look at the state's appropriation in terms of per-pupil funding. In fiscal year 2008, before the recession, Minnesota spent \$8,288 in constant adjusted 2017 dollars per full-time equivalent student, or FTE (State Higher Education Executive Officers Association, 2017, p. 27). In fiscal year 2017, we spent \$7,182 per FTE. That's a reduction of 13.3% in nine years. The \$7,182 per-pupil funding puts Minnesota \$461 below the national average (State Higher Education Executive Officers Association, 2017, p. 33).

TUITION

Tuition at our public institutions increased dramatically as institutions were cut off from state appropriation dollars. Minnesota's pre-recession, 2008, net tuition revenue, calculated in constant adjusted 2017 dollars, was \$6,463. In fiscal year 2017, it was \$9,142, an increase of 41.5% in just one nine-year period (State Higher Education Executive Officers Association, 2017, p. 30). But to best see what students and their families are facing, it is important to look at what Minnesota has chosen to do to its public institutions over time.



GRAPH 9.1 MINNESOTA PUBLIC TUITION AND FEES

The large timeframe represented above, 1971 to 2018, reflects an increase in tuition and fees at the University of Minnesota of 2,711%. It reflects an increase in tuition and fees at our Minnesota State four-year universities of 1,948%, and it reflects an increase in tuition and fees at Minnesota State two-year colleges of 1,303%. But even if we take a shorter view and look only at what the state has done in the past 18 years, the data are still grim. From 2000 to 2017, tuition and fees at Minnesota's public two-year colleges increased from \$2,480 to \$5,419, an increase of 118.5% (Minnesota Office of Higher Education, 2019). During that same time span, from 2000 to 2017, tuition and fees at Minnesota State's four-year universities increased from \$3,258 to \$8,521, an increase of 161.5% (Minnesota Office of Higher Education, System-Level, 2019). The cost of educating a student at our public institutions has stayed relatively constant. The two variables that have changed are the erasure of support from the state and the subsequent increase in tuition to make up for those losses.

To put this historical increase in tuition into perspective, it is helpful to compare it with the value of the dollar over the same period of time. As mentioned above, between 1971-2018, tuition and fees increased at the University of Minnesota by 2,711%, at the Minnesota State four-year universities by 1,948%, and at Minnesota State two-year colleges by 1,303%. According to the Bureau of Labor Statistics consumer price index, the value of a 1971 dollar in 2018 is \$6.20, which is an increase of 520%. Tuition at Minnesota's public institutions of higher education has outpaced the cost of living by three to five times, depending on institution type. If we look back only as far as 2008, pre-recession, the costs of attending a four-year college are up 23 percent over 2008 levels (American Federation of Teachers, 2018).



GRAPH 9.2: MINNESOTA COLLEGE TUITION INCREASE AS COMPARED TO INFLATION

Minnesota Office of Higher Education, 2019

Why does this matter? Here is a snapshot of who attends Minnesota State:

- Total students served: 259,549
- 58% of students are from Greater Minnesota
- 24% are American Indian or students of color
- 37% are 25 or older (the average age is 26)
- 55% are female
- 19% are the first in their families to attend college (50,000)
- 51% are from underrepresented groups (133,000)
- 10,500 are veterans (Workgroup on Longterm Sustainability, 2016)

And here is a snapshot of the students at the University of Minnesota:

- Total students served: 44,405 (including graduation students)
- 25.9% of undergraduate students are the first in their families to attend college
- Students represent all 50 states
- Students represent 136 countries
- 1,903 of current students are African American
- 424 of current students are American Indian
- 3,755 of current students are Asian (University of Minnesota, 2018)

These are the people the Minnesota Legislature has left to figure out how to pay tuition that has increased at a rate greater than four to five times the rate of inflation. And we will never know how many people have had to forego college altogether because of those same policy decisions.

STUDENT LOAN DEBT

As the state appropriation to higher education was slashed and tuition rose, student debt loads, to nobody's surprise, also increased. The average student debt load carried by a baccalaureate-level graduate of Minnesota's class of 2017 was \$31,734, ranking among the states with the highest levels of student loan debt (The Institute for College Access and Success, 2018, p. 8). Further, the percentage of students who have to take out loans to pay for college ranks even higher when compared to other states. Sixty-eight percent of Minnesota graduates have had to take on debt to pay for college, the fourth highest percentage in the country (The Institute for College Access and Success, 2018, p. 9).



GRAPH 9.3: AVERAGE MN STUDENT DEBT FOR GRADUATES WITH A BACCALAUREATE DEGREE

If an average Minnesota graduate from the class of 2017 carries \$31,734 in loans with a tenyear term, monthly payments are quite high. One of the most common reasons teachers give for leaving the profession or leaving teacher preparation in pursuit of a different profession is the fact that teacher pay does not compensate teachers such that they can pay the average student debt payments and their family health care premiums.

If the student gets one of the best interest rates at 6%, the monthly payments are \$352. Whereas, if the student gets one of the highest interest rates offered by Sallie Mae, the monthly payments rise to \$452.

Students Shut Out of College Altogether

It is very difficult to get specific data on the number of students who would attend college were it affordable, but cannot because of the high tuition model that Minnesota has adopted. In a recent national study that examined 2,000 colleges and universities, researchers found that half of those institutions were affordable for families whose income is above \$160,000 per year. For students from lower income backgrounds, the analysis found that only 1 to 5% of the colleges were within reach: "The college affordability problem is fundamentally one of inequity [...]. This inequity enables a wealthy student to attend essentially any college while effectively shutting out many of her peers" (Bidwell, 2017). Faculty at our public institutions can tell countless stories of students who drop out because of financial hardship, or who fail because their need to carry two or three jobs to afford tuition overwhelms them, and they are ultimately unable to successfully complete their school work.

ENROLLMENT

In the fall of 2017, the University of Minnesota enrolled 46,221 undergraduate students at its five campuses (University of Minnesota, 2018). The number of undergraduates in the Minnesota State system was 142,583 in the fall of 2017 (Office of Higher Education, 2018). Total undergraduate enrollment at Minnesota's private colleges and universities in the fall of 2017 was 44,282 (Office of Higher Education, 2018).



GRAPH 9.4: MINNESOTA UNDERGRADUATE ENROLLMENT, FALL 2017

There were 44,326 undergraduates enrolled in Minnesota's private colleges and universities in the fall of 2017, while over four times that number, 188,804 undergraduates enrolled in Minnesota's public institutions of higher education (Office of Higher Education, 2018).

The Structure of the Minnesota State Grant Program

The Minnesota State Grant Program is structured so that the maximum grant award is ostensibly aimed at 50% of the cost of attending college, and the cost of attending college is capped at the highest public tuition at a two-year or four-year program. Following is the formula used for calculating grant awards:



(Minnesota Office of Higher Education, Minnesota State Grant, 2018)

Since 2016, the calculation has established the tuition and fees number, no matter whether the student is attending a public or a private, a for-profit or a not-for profit institution, at the highest public institutions' current tuition rate.

DISTRIBUTION OF STATE GRANT DOLLARS BY INSTITUTION TYPE

In order to understand how heavily the State Grant Program is skewed toward the private sector, it is helpful to examine the distribution of state grant dollars by institution type. At the lowest income levels, the total amount spent in awards to students is relatively equal across types of institutions with the exception of for-profit private institutions: with \$5.49 million in grants to students at Minnesota's two-year colleges, \$3.76 million to students at Minnesota State's four-year universities, \$5.46 million going to students at the University of Minnesota, and \$6.07 million going to students at Minnesota's private, non-profit institutions (Minnesota Office of Higher Education, Minnesota State Grant, 2018). The largest amount goes to private, non-profit institutions at all income levels. However, for higher and higher income brackets, greater and greater amounts go to students attending Minnesota's private, non-profit institutions, and when we look at the income bracket of an adjusted gross income of \$90,000-\$99,999, the amount that goes to private non-profit colleges is nearly equal to the total amount that goes to all of the public institutions combined.

CHART 9.1: DISTRIBUTION OF	F STATE GRANT DOLLARS BY STUDENT INCOME

ADJUSTED GROSS INCOME	MN STATE 2-YEAR COLLEGES	MN STATE 4-YEAR COLLEGES	U OF MN	PRIVATE NON- PROFIT COLLEGES	PRIVATE FOR-PROFIT COLLEGES
\$ 10,000- \$ 19,999	\$5.49 million	\$3.76 million	\$5.46 million	\$6.07 million	\$1.16 million
\$20,000- \$29,999	\$8.01 million	\$4.73 million	\$6.68 million	\$6.94 million	\$1.65 million
\$30,000- \$39,999	\$6.02 million	\$4.78 million	\$6.93 million	\$7.3 million	\$1.09 million
\$40,000- \$49,999	\$3.88 million	\$4.14 million	\$6.55 million	\$6.86 million	\$.74 million
\$50,000- \$59,000	\$3 million	\$3.52 million	\$5.79 million	\$6.29 million	\$.52 million
\$60,000- \$69,999	\$2.23 million	\$2.78 million	\$4.98 million	\$5.63 million	\$.33 million
\$70,000- \$79,999	\$1.16 million	\$1.93 million	\$3.60 million	\$4.39 million	\$.25 million
\$80,000- \$89,999	\$.64 million	\$1.28 million	\$2.45 million	\$2.9 million	\$.16 million
\$90,000- \$99,999	\$.23 million	\$.57 million	\$1.52 million	\$2.08 million	\$.04 million

(Minnesota Office of Higher Education, Minnesota State Grant, 2018)

Policy Interventions for Public Higher Education

Minnesota has both dramatically disinvested in public higher education over the past two decades, and at the same time, it has sent more and more of the money it spends on public higher education into the State Grant Program and less and less of it on our public institutions. These two policy decisions, coupled with the structure of the State Grant Program, have had devastating consequences for the students most in need of assistance.

Each year, the state's allocation to higher education is split into three categories: 1) the University of Minnesota, 2) Minnesota State, and 3) the Minnesota State Grant Program. The overall allotment to higher education each biennium is a finite amount. The more of that money that goes to the State Grant Program, the less goes to the institutions themselves, which means that the only way those institutions can make up the difference is to raise tuition.

Grants from the State Grant Program, which can be used at public or private, for-profit or non-profit institutions, are capped according the highest public tuition at a two-year or four-year institution. Minnesota's private colleges and universities, therefore, have a vested interest in tuition at the public institutions going up, as that increases the size of the grants that students attending private institutions can get. This creates an ever-worsening situation for students at public institutions and at lower income levels, and it has a doubly-negative impact on the students who most need assistance to access and complete a college program. Private schools push for more of the higher education budget to go into grants that follow the students rather than to the public institutions, which in turn forces public institutions to continuously increase tuition, which makes it harder and harder for students in low and middle income brackets to get through college without increasingly overwhelming debt loads.

State policy has created a vicious cycle. First, the state dramatically reduces its overall allocation to higher education as a percentage of its budget. Then, the state puts more and more of that money into the state grant program, which in turn forces tuition at public institutions to rise, which in turn leads to larger max caps on grant awards, which leads to more money going into the grant program, and so on.

IMAGE 9.1: THE VISCIOUS CYCLE OF THE HIGH TUITION, HIGH AID MODEL



Because of the structure of the State Grant Program, a choice to increase its budget is also a choice to both disproportionately send grant dollars to private institutions and to increase tuition at our public institutions. Minnesota has chosen to create a grant program that actually increases the tuition students need grants to pay for in the first place. The winners in this model are our private institutions and private student loan lenders. The losers are Minnesota students, particularly those at our lowest income levels.

Our State Grant Program is called a needs-based program, and on its surface, it appears to be just that. And if we compare how much money Minnesota spends on its needs-based program, we rank ninth in the nation. But one need look no further than where money goes to understand the problem. The structure of the program is such that it is actually bleeding the public systems of the dollars they need to keep tuition low while it sends its largest grants to private institutions with students from the highest income brackets. When the public hears that the State Grant Program is a needs-based program, a reasonable assumption to make is that the money is going to people who need it most. In the past several years, the Office of Higher Education has presented data showing where the State Grant Program money goes in such a way as to imply that the neediest students at our public institutions are getting most of the money. That is a distortion of the facts.



GRAPH 9.5: GRANTS BY FAMILY ADJUSTED GROSS INCOME

Average combined federal Pell and State grant award received, by family adjusted gross income, fiscal year 2017.

As we see in the chart above, most of the aid for students whose family adjusted gross income is below \$40,000 comes from federal Pell grants. The State Grant Program is actually doing very little for them. In fact, the average State Grant award that goes to someone whose family adjusted gross income is over \$100,000 is greater than the size of the award that goes to students whose family adjusted gross income is less than \$10,000. The grant program sends larger awards to students whose family adjusted gross income is higher than \$40,000.

This award calculation model would make sense if the total aid package were enough to allow someone in the lower income brackets to cover their costs. However, that is by no means the case. The Minnesota Office of Higher Education calculates two categories of costs for students: 1) tuition and 2) living and miscellaneous expenses. In 2017, tuition for a full-time student at a two-year college was \$5,736, and living and miscellaneous expenses were \$9,320. Tuition at a public four-year college was \$14,186, and, again, living and miscellaneous expenses were \$9,320. Tuition at a public four-year college was \$14,056. The total amount needed for a student to attend a public two-year college full time in 2017 was \$15,056. The total amount needed for a student to attend a public four-year university was \$23,506. And, as the chart above shows, the highest total aid package, including Pell Grants and State Grant Awards, is less than \$6,000.

Minnesota Office of Higher Education, 2018, p. 12

The HOPE Lab publishes a report each year assessing the basic needs of our nation's college and university students. The report assesses the prevalence of food insecurity, homelessness, and housing insecurity among college students. Food insecurity is defined as "the limited or uncertain availability of nutritionally adequate and safe foods in a socially acceptable manner" (HOPE Lab, 2018, p. 4). In its most recent report, Still Hungry and Homeless in College (2018), they report that 36% of four-year college and university students are food insecure, and that the percentage of students who are food insecure at community colleges this year is closer to 42% (HOPE Lab, 2018, p. 3).

Almost "one third of community college students and one-quarter of university students said that because of a lack of money they skipped meals or cut the size of their meals, with 22% of community college students and 18% of university students doing this at least 3 days in the last 30 days" (HOPE Lab, 2018, p. 10). Thirty-six percent of four-year students and 46% of two-year students are housing insecure (HOPE Lab, 2018, p. 3). Not surprisingly, basic needs insecurities are associated with poor academic outcomes. College students who have to skip meals or days with food are more likely to earn lower grades in college (El Zein et al., 2017). Researchers have also linked basic needs insecurity to "poorer self-reported physical health, symptoms of depression, and higher perceived stress" (HOPE Lab, 2018). And, even when campuses provide services such as food shelves to help alleviate food insecurity of students, the stigma attached to accessing such services prevents many students from making use of the opportunity. According to the most recent HOPE Lab study, 50% of students who responded to a large survey at a Midwestern university reported that they did not want to be served by their peers at a campus food pantry.

The HOPE Lab report also assesses the prevalence of housing insecurity and homelessness among college students. Housing insecurity includes challenges such as the inability to pay rent or utilities or the need to move frequently. Almost half of community college students and 35% of university students in the HOPE Lab study experienced housing insecurity in the last year (HOPE Lab, 2018, p. 13). Nine percent of four-year students and 12% of two-year students are homeless (HOPE Lab, 2018, p. 3).

A State Grant Program that pays its smallest awards to students at the lowest income brackets is leaving those students with the choice to either take on debt that equals or exceeds their gross adjusted family income or forego college altogether. It should be noted that on a national level, bachelor's degree recipients who received Pell Grants, "most of whom had family incomes of \$40,000 or less, were more than five times as likely to default [on their student loans] within 12 years as their higher income peers" (The Institute for College Access and Success, 2018, p. 5).

It is true that most of the money in the grant program is being spent on students who attend our public institutions, but students in the lowest income brackets receive small grants, leaving them with a combined Pell Grant and State Grant award that is less that half or what they need to cover the costs of attending college full time. In essence, the State Grant Program has become a vehicle for diverting dollars meant for public higher education into the private sector, leaving the vast majority of Minnesota students to face a decision of taking on greater and greater debt or forgoing college altogether.

According to the Georgetown Public Policy Institute, by 2020, our economy will have grown such that it will require and sustain 165 million jobs. Sixty-five percent of those jobs will require post-secondary education. But instead of preparing our students for that future, we are locking them out of college or burdening them with high levels of student debt. Why should legislators care?

- Student debt stifles spending. It slows the automotive industry, and all other aspects of spending.
- Student debt slows the housing market: "Among student loan borrowers, 41 percent have delayed homeownership. Meanwhile, 27 percent haven't even managed to make it out of their parent's home yet" (Kirkham, 2016).
- Student loan debt holds back new businesses. Twenty-five percent of "new graduates with loans more than \$25,000 "are delaying their plans to start a business due to those loans" (Kirkham, 2016).

The operations of Minnesota State alone support a total of 67,717 jobs in Minnesota. And for every \$1 in appropriation, Minnesota State generates nearly \$12 in economic activity. And that's just Minnesota State.

The State Grant Program has been designed in such a way that it bleeds dollars from our public institutions, leading to a cycle of ever-increasing tuition and ever-increasing student debt loads. And, Minnesota has moved more and more of its higher education allotment into this program at the same time that we have decreased the percentage of the state budget that goes to higher education at all by over 66%. A choice to increase spending on the State Grant Program is a choice to increase tuition and student debt loads.

Future funding decisions should recognize the disproportionate nature of the State Grant Program, which skews toward private institutions and higher income levels. If Minnesota is serious about providing meaningful aid to families at the lowest income levels, there are other models to consider that would make a much more meaningful difference for our students and our economy.

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Improving Special Education Services in Minnesota Schools

All previous EPIC teams have contained special educators and brought attention to the intersection of special education and other E-12 policy issues. Our EPIC paper on teacher recruitment and retention contained a section on the attrition problems school districts face in retaining special education teachers. In addition, our EPIC paper on trauma-informed restorative schools provided a detailed analysis of the disproportional use of suspensions and expulsions on students with disabilities. Finally, our EPIC paper on teacher preparation emphasized the need to help special educators and general education teachers collaborate for the benefit of all students. However, this section represents the first comprehensive, stand-alone look at the policy issues facing educators working in special education and their students.

The United States federal government and the state of Minnesota continually underfund special education, which leaves educators and students with a lack of critical resources. In addition, this lack of funding continues to grow on an annual basis despite increased public awareness of the disparities.

The United States federal government and the state of Minnesota continually underfund special education, which leaves educators and students with a lack of critical resources. In addition, this lack of funding continues to grow on an annual basis despite increased public awareness of the disparities. This funding problem causes local districts to redirect funds from other revenue streams to meet the unfulfilled promises of federal and state policymakers. It is time for the leaders of this state to provide the resources all children deserve regardless of ability.

One way to start to close this fiscal gap is to fully fund the so-called special education "cross subsidy" in Minnesota. Due to the chronic refusal to pay for special education services at both the state and federal level, the price tag for closing this gap is estimated at around \$1.5 billion. These funds would not only ensure high quality special education services to our most vulnerable students, but also end the deeply problematic practice of shifting general education funds to cover the cost of special education services. Every single student in Minnesota would benefit from this change – dramatically.

Policymakers have ignored and underfunded special education programs since they were required in 1975, and we offer this section as a start to what needs to be a longer and substantial conversation about funding special education.

Special education is a unique and specialized part of the larger E-12 framework, and we think it is appropriate to offer a quick primer before addressing systemic challenges. Policymakers have ignored and underfunded special education programs since they were required in 1975, and we offer this section as a start to what needs to be a longer and substantial conversation about funding special education. Minnesota does not need to commission new focus groups or task forces. Previous state commissions and agencies, working in a bipartisan manner, have identified the shortfalls hampering the efforts of educators working with some of our most at-risk students. It is time to start implementing the recommendations of researchers, educators, and policy experts.

In what follows, we first offer a general overview of the special education landscape in Minnesota. Next, we discuss opportunities for change. We specify three challenges that hinder the work of educators in special education as they relate to: (1) funding, (2) special educator attrition, and (3) work environment and student services. Finally, we offer a list of potential solutions Minnesota policymakers can use to start improving the conditions for educators in special education and their students.

The Special Education Landscape in Minnesota

Special education policy and terminology can seem complicated to those not directly involved with this portion of the overall E-12 public education system. First, numerous revenue streams from local, state, and federal governments fund special education programs in Minnesota. Second, special education operates with its own jargon and terminology different from that of other branches of E-12 education. Finally, special educators, parents, and students encounter a variety of additional legal responsibilities and rights above those influencing the school careers of general education students and their families. For these reasons, it is important to pause and present some general facts about special education in Minnesota. In this section, we describe: (1) the process of special education identification and (2) the current demographics of the special educator workforce and special education student population in Minnesota.
Special Education Identification

The Individuals with Disabilities Education Act (IDEA), known as the Education for All Handicapped Children Act from 1975-1990, guarantees all schoolchildren in the United States a free appropriate public education (FAPE) in the least restrictive environment necessary. This means state governments and local education agencies (LEAs) must provide services to students with disabilities to meet this obligation. All Minnesota schoolchildren, including traditional public school students, charter school students, and private school students, are entitled to special education services paid for by the school district in which they officially reside. For example, Minneapolis Public Schools would be financially responsible for funding the necessary special education services of a student who resides within the district boundaries but attends a private school in Eagan.

An individualized education program is a legally binding document holding school officials accountable for the services a student needs in accordance with his or her federal right to a free appropriate public education in the least restrictive environment possible.

Students and families must move through a series of steps before a child will receive special education services. First, school officials screen students to determine if a child is eligible to receive comprehensive special education services. Children first move through a prereferral intervention process. After that process is complete, a student is formally evaluated. If a student's evaluation results show a need for special education services, the educators, the parents or guardians of an identified child, and other support professionals meet to collaboratively develop an Individualized Education Program (IEP)¹² in order to meet the student's unique needs. It is important to note, **IEP is a legally binding document holding school officials accountable for the services a student needs in accordance with his or her federal right to a FAPE.** To date, there are 13 disability categories identified in federal statute and state statute. They include:

- 1. autism spectrum disorders (ASD)
- 2. deaf-blind (D/B)
- 3. deaf and hard of hearing (D/HH)
- 4. developmental cognitive disabilities (DCD-MM, DCD-SP)¹³

¹² Special education teachers face unique legal responsibilities as compared to general education teachers. IEPs are legally binding contracts that can result in legal consequences if an educator or district fails to meet the needs of a child.

¹³ DCD-MM = Developmental Cognitive Disabilities: Mild-Moderate; DCD-SP = Developmental Cognitive Disabilities: Severe-Profound

- 5. developmental delay (D/D)
- 6. emotional or behavioral disorders (EBD)
- 7. other health disabilities (OHD)
- 8. physically impaired (PI)
- 9. severely multiply impaired (SMI)
- 10. specific learning disabilities (SLD)
- 11. speech or language impairments (S/LI)
- 12. traumatic brain injury (TBI)
- 13. visually impaired (VI)

In addition, lawmakers should remember that a student might carry more than one disability diagnosis.

Demographics of Minnesota's Special Education Population: Educators and Students

Lawmakers should be appalled, and worried, that 324 individuals are working with students with an emotional and behavioral disorders diagnosis without traditional licensing.

In this larger paper, we have alerted lawmakers to the acute teacher attrition problem facing public education systems. However, we want to shine a spotlight on the retention epidemic in special education. The Minnesota Professional Educator Licensing and Standards Board (PELSB) (2019) recently released the biennial *Teacher Supply and Demand* report to the Minnesota Legislature. Individuals holding special education licenses are choosing to not use them at alarming rates. In addition, chart 10.1 shows that seven of the top 15 licensure categories requiring "special permissions" are in the area of special education. Lawmakers should be appalled, and worried, that 324 individuals are working with students with an EBD diagnosis without traditional licensing.

CHART 10.1: SPED LICENSE AREAS WITH THE MOST TEACHERS WORKING
UNDER SPECIAL PERMISSION/OUT OF COMPLIANCE

AREA	NUMBER OF TEACHERS WITH SP/OOC
Mildly handicapped	526
Emotional and Behavior Disorders	324
Early Childhood Special Education	284
Learning disabilities	255
Autism spectrum disorders	236
Developmental disabilities	135
Mild to moderate mentally handicapped	112

Data obtained from PELSB (2019, pp. 11-12).

In addition to teachers, education support professionals (ESPs) are a vital part of the special education workforce. It is unfortunate that no state agency provides an ongoing and accurate count of ESPs. The Minnesota State Report Card identifies 20,304 educators, 16.6% of public school employees in the 2018-19 school year, as ESPs. We can hypothesize that many of these individuals are working with special education students. However, the state needs to better account for the valuable work of Minnesota's ESPs. Policymakers should know how districts are utilizing ESPs as well as what districts struggle to recruit ESPs.

The state needs to better account for the valuable work of Minnesota's ESPs. Policymakers should know how districts are utilizing ESPs as well as what districts struggle to recruit ESPs.

It is much easier to offer demographic information about the special education student population in Minnesota. Districts and state agencies keep ongoing, accurate counts of which students qualify for special education services. Financial accounting reports provide the most up-to-date accounting about student demographics. The Minnesota House of Representatives non-partisan research department released a 2018 summary of school finances for all legislators that provides the most accurate numbers to date. According to House researchers, we know there are "a total of 142,270 students, or roughly 16.5 percent [of the total student population], receive some special education services" (Strom, November 2018, p. 57). Minnesota House researchers also provided the most accurate data on the special education population by disability category. We have provided those numbers in Chart 10.2.

CHART 10.2: MINNESOTA SPECIAL EDUCATION STUDENT POPULATION BY DISABILITY CATEGORY

CATEGORY	NUMBER OF STUDENTS
Speech language impaired	22,186
Developmentally cognitive disability, mild-moderate	5,494
Developmentally cognitive disability, severe-profound	1,960
Severely multiple impaired	1,511
Physically impaired	1,606
Hearing impaired	2,553
Blind/visually disabled	503
Specific learning disabilities	32,332
Emotional behavior disorder	15,983
Deaf/blind	103
Other health impaired	19,781
Autism spectrum disorder	19,386
Traumatic brain injury	455
Early childhood developmentally delayed	18,417

Data obtained from Strom (November 2018) pp. 57-58.

Opportunities for Change

OPPORTUNITY #1: FULLY FUND SPECIAL EDUCATION

Special education is not a category that takes money from general education, and the term cross-subsidy creates a problematic division between different parts of the public school system. All students are part of a school community, and lawmakers should provide all students the resources they need.

Lawmakers can make the biggest change by providing much needed funding for special education. Most policy advocates and experts use the term "cross-subsidy" to discuss the budget shortfalls LEAs face to meet the costs of special education. We encourage lawmakers and others to quit using this term. Special education is not a category that takes money from general education, and the term cross-subsidy creates a problematic division between different parts of the public school system. All students are part of a school community, and lawmakers should provide all students the resources they need. In addition, when schools are providing much more inclusive environments, there should be less division between services. We will use the term cross-subsidy at times in this section for the sake of clarity. However, it is important that we all quit thinking in terms of special education funding vs. general education funding.

Funding special education is not an easy task, but it presents the greatest opportunity to make material, immediate differences in the lives of Minnesota's students with disabilities.

Funding special education is not an easy task, but it presents the greatest opportunity to make material, immediate differences in the lives of Minnesota's students with disabilities. Any steps to lessen the financial burden placed on LEAs will benefit not only special education students but also all students in Minnesota. The funding shortfalls in Minnesota are the result of underfunded promises at the federal and state level. We explain this opportunity by (1) defining the cross-subsidy, (2) explaining the role of the federal government in special education funding, and (3) highlighting specific funding challenges unique to Minnesota.

The cross-subsidy is the amount of money needed to cover the cost of special education not met by federal and state revenue streams. The Minnesota Department of Education (MDE) (July 2018) accurately described the cross subsidy and special education funding by writing:

Expenditures for special education programs provided by local education agencies, including school districts, charter schools, intermediate school districts and special education cooperatives, are funded with a combination of state categorical aids, federal categorical aids, third-party billing revenues and state and local general education revenues. **The special education cross-subsidy measures the difference between special education expenditures and corresponding revenues.** (p. 4)

In sum, Minnesota schools fund special education services through federal and state dollars, but these revenue streams do not meet the total dollar amounts required to provide a FAPE to all students identified with disabilities. Chart 10.3 shows the total amount of state expenditures, as well as future predictions on expenditures, for special education services in Minnesota.

CHART 10.3: SPECIAL EDUCATION APPROPRIATIONS

FISCAL YEAR	REGULAR SPECIAL EDUCATION AID	SPECIAL EDUCATION EXCESS COST	HOME- BASED SERVICES TRAVEL AID	SPECIAL PUPIL AID	COURT- PLACED AID	OUT-OF- STATE TUITION
2019	\$1,428,020,000	-	\$532,000	\$1,830,000	\$47,000	\$250,000
2018	\$1,340,706,000	_	\$508,000	\$1,597,000	\$46,000	\$250,000
2017	\$1,247,107,000	-	\$435,000	\$1,516,000	\$48,000	\$250,000
2016	\$1,183,807,000	-	\$422,000	\$1,307,000	\$47,000	\$250,000
2015	\$1,111,641,000	-	\$346,000	\$1,674,000	\$55,000	\$250,000
2014	\$1,038,465,000	\$42,016,000	\$351,000	\$1,548,000	\$54,000	\$250,000

For fiscal year 2015 and later, the appropriation for excess cost aid is included in the regular special education aid appropriation. Source: Home Resource Department (Strom, November 2018, p. 60).

Public school districts in Minnesota had to find over \$707 million to meet the financial gaps left by the federal and state governments. Many times, this required those districts to pull earmarked money from their general funds leaving funding gaps in other parts of their educational programs.

The cross-subsidy is not a recent problem for Minnesota schools. It has existed as long as the state has been in the business of providing services for students identified with disabilities. Advocates, parents, educators, and school districts have drawn significant attention to this growing budgetary concern, but the cross-subsidy gets larger every year. In addition, the cross-subsidy disproportionally burdens different regions more than others. Chart 10.4 breaks down the cross-subsidy statewide and by geographic area. As shown by Column F, public school districts in Minnesota had to find over \$707 million to meet the financial gaps left by the federal and state governments. Many times, this required those districts to pull earmarked money from their general funds leaving funding gaps in other parts of their educational programs.

DISTRICT	(A) ADJUSTED PU	(B) SPECIAL EDUCATION EXPENDITURE	(C) CATEGORICAL REVENUE	(D) GROSS CROSS- SUBSIDY (B-C)	(E) ADJUSTED GENERAL EDUCATION REVENUE FOR SPECIAL EDUCATION	(F) ADJUSTED NET CROSS- SUBSIDY (D-E)	(G) PER WADM
Totals	934,686	1,917,310,562	1,102,151,023	815, 159, 540	107,270,822	707,888,718	757.35
By stratum							
Minneapolis and St. Paul	77,932	227,019,005	113,792,019	113,226,986	18,173,463	95,053,523	1,219.69
Other metro, inner	97,379	202,159,768	99,810,904	102,348,864	14,264,495	88,084,369	904.56
Other metro, outer	296,239	604,159,083	334,208,389	269,950,694	33,663,475	236,287,219	797.62
Non-metro > = 2k	206,641	431,531,807	248,263,374	183,268,434	24,004,207	159,264,226	770.73
Non-metro 1k-2k	104, 128	178,379,607	103,648,407	74,731,200	8,132,774	66,598,426	639.58
Non-metro < 1 k	94,785	151,827,912	87,781,469	64,046,443	6,908,724	57,137,718	602.82
District totals	877,104	1,795,077,182	987,504,562	807,572,620	15,147,138	702,425,481	800.85
Charter schools	57,583	122,233,381	114,646,461	7,586,920	2,123,683	5,463,237	94.88

CHART 10.4: MINNESOTA'S SPECIAL EDUCATION CROSS-SUBSIDY BY REGION

Reprinted from (Minnesota Department of Education, July 2018, p. 13).

The cross-subsidy is not the fault of school districts, administrators, parents, or educators. It is a problem caused by federal and state policymakers. The primary blame lies with the U.S. Government because lawmakers continue to break promises to fund the IDEA. The National Council on Disability (NCD) issued the most recent and comprehensive explanation of the federal government's failure to fund special education in its report *Broken Promises: The Underfunding of IDEA* (2018). In the opening of this report, NCD reminded lawmakers that:

In 1975, when Congress passed the first iteration of the Individuals with Disabilities Education Act (IDEA) mandating that all children with disabilities be provided a free appropriate public education in the least restrictive environment (LRE), it also promised states the Federal Government would provide 40 percent of the average per pupil expenditure to help offset the cost of educating eligible students. In the nearly 43 years since the law's passage, Congress has never lived up to that funding promise. (p. 12) Congress has reauthorized the IDEA and changed the calculation of the funding formula, but lawmakers have never removed the promise of providing states 40% of the funding needed to educate students with disabilities. Unfortunately, promises do not pay the bills. As NCD (2018) recently reported, "The Federal Government pays less than half of what it originally promised in 1975, or roughly 18 percent of the total" (p. 13).

State governments and LEAs bear an important responsibility of finding 60% of the funds needed to educate students in special education (IDEA Full Funding Coalition, June 2017). However, the failures of federal lawmakers unfairly adds to their responsibility and leads to problematic funding decisions for many schools. States and districts must find 82% of the required funds to educate students in special education In 2017, a wide range of education stakeholders joined to create the IDEA Full Funding Coalition.¹⁴ This group of unions, administrative groups, and advocacy groups issued a joint statement to congress stating that:

The chronic underfunding of IDEA by the federal government places an additional funding burden on states, local school districts, and taxpayers to pay for needed services. This often means using local budget dollars to cover the federal shortfall, shortchanging other school programs that students with disabilities often also benefit from. (IDEA Full Funding Coalition, June 2017)

It is unacceptable that states and LEAs must find ways to fund special education by removing funds from other programs to cover the unfulfilled promises of the federal government.

Lawmakers should also be aware that states and LEAs are also using other mechanisms, beyond redistributing already earmarked funds, to meet the growing costs of educating students with disabilities. NCD (2018) stressed:

The method local districts use to cope with the lack of federal funding to support special education and related services is Medicaid...According to a 2017 report by the AASA, 54 districts rely on Medicaid to pay for nurses, therapists, and other key personnel that provide IDEA services for students with disabilities, as well as equipment and technology. IDEA-eligible students and others benefit from Medicaid's Early and Periodic Screening, Diagnostic, and Treatment, which provides screenings and treatments for things such as immunizations, hearing and vision problems, developmental delays, and more. (p. 37)

¹⁴ This coalition includes: The School Superintendents Association; American Council for School Social Work; American Federation of State, County & Municipal Employees; American Federation of Teachers; American Music Therapy Association; American Occupational Therapy Association; American Physical Therapy Association; American Psychological Association; American Speech-Language-Hearing-Association; Association of School Business Officials; International Association of Educational Service Agencies; Clearingbouse on Women's Issues; Council of Administrators of Special Education Division); Council of Great City Schools; Council for Exceptional Children; Council of Reacet City Schools; Council for Exceptional Children; Council of Parent Attorneys and Advocates; Higher Education Consortium for Special Education; Learning Disabilities Association of Social Workers; National Association of School Principals; National Association of Social Workers; National Association of School Principals; National Association of Social Workers; National Association of School Principals; National Association of Social Workers; National Center for Learning Disabilities; National Center for Transgender Equality; National Down Syndrome Congress; National Education Association; National PTA; National Rural Education Advocacy Consortium; National Rural Education Association; TASH; The ARC of the United States

"One national association reported that its therapists spend 25 to 35 percent of their time on Medicaid paperwork time that could be spent serving students."

We are not faulting LEAs for finding new ways to meet their fiduciary responsibilities. We instead point to this as another effect brought about by the failed funding of the federal government. As NCD (2018) noted, "Medicaid provides revenue that districts can use to help fund related services such as speech/language therapy and occupational therapy" (p. 38). However, districts gain new administrative burdens in efforts to obtain these funds and "one national association reported that its therapists spend 25 to 35 percent of their time on Medicaid paperwork-time that could be spent serving students" (National Council on Disability, 2018, p. 38). Educators should not be put in the position of spending less time with students in order to fill out paperwork to make up for the funding failures of the federal government.

"The full impact and potential of IDEA is hard to determine when adequate funding has never been provided by Congress."

The failures of the federal government have burdened Minnesota's LEAs. Graph 10.1 illustrates the growing burden placed on the state and LEAs to cover the costs left by the federal government. The graph shows that "Since FY 2012, the portion of special education expenditures funded with state aid has gradually increased, while the portion funded with federal aid has gradually decreased" (Minnesota Department of Education, July 2018, p. 10). We worry that this lack of funding can, and has led, to what the NCD (2018) refers to as an "ongoing 'silo' approach" (p. 39). In the perspective of the NCD (2018) and other advocacy groups, districts may make tough financial decisions that result in "inappropriate segregation of students with disabilities away from their peers" (p. 39). We also agree with the NCD (2018) argument that "the full impact and potential of IDEA is hard to determine when adequate funding has never been provided by Congress" (p. 39).

GRAPH 10.1: REVENUE STREAMS AND SPECIAL EDUCATION COSTS



Graph reprinted from (Minnesota Department of Education, July 2018, p. 10).

Finally, Minnesota has unique challenges related to special education funding that is directly tied to the process of open enrollment. Minnesota students "may reside in one school district but enroll in another district and receive special education there" (Office of the Legislative Auditor, State of Minnesota, March 2013, p. 66). We understand that each family faces unique circumstances that leads to placing children in specific learning environments. However, Minnesota has yet to create a fair and equitable system that allows students with disabilities to benefit from the promises of open enrollment and receive necessary services without creating unintended financial burdens for resident districts. The OLA (2013) explained the unplanned funding burden caused by the intersection between special education and open enrollment in these terms:

When students receiving special education enroll in a district other than the district in which they live, the law requires enrolling districts to plan and provide special education services, while resident districts must pay for the services. The resident district may have a representative serve on the student's IEP team but does not control team decisions on levels of service, according to school district representatives we interviewed. As a result, control over spending is largely removed from the resident school district. (p. 66)

We are not arguing that enrolling districts are defrauding resident districts out of money. Instead, we want lawmakers to realize that the costs of educating students with disabilities varies by region and setting. Sometimes the transfer of funds between LEAs creates no additional burden for resident districts. At other times, there are large burdens placed on a resident district that are completely out of their control. The resident district may be able to provide serices more efficiently and cost-effectively themselves but end up paying more for another district to do so. This matter becomes even more complicated when we factor in charter school and private school billing. The state of Minnesota faces the joint burden of meeting the failures of the federal government as well as sorting out how open enrollment overburdens some LEAs in unintended ways.

Funding the special education cross-subsidy is the first opportunity for Minnesota lawmakers.

OPPORTUNITY #2: SPECIAL EDUCATOR ATTRITION

Previous EPIC work has proven that teacher attrition is a significant problem for all levels of E-12 education in Minnesota. In addition, portions of this paper are reviewing ways to improve school and work environments to retain high-quality teachers in all schools. However, we must also stress the special educator attrition is a particular stressor for LEAs across the state. MDE has commissioned several workgroups to try to rebuild the special educator workforce in Minnesota. Other government agencies, like the OLA, have also recommended ways to stop special educators from leaving their positions. State lawmakers should provide support for intentional, evidence-driven programs that will keep highly qualified special educators in their classrooms.

State lawmakers should provide support for intentional, evidence-driven programs that will keep highly qualified special educators in their classrooms.

MDE's most recent *Teacher Supply and Demand* report presents the stark realities facing hiring officials across the state.¹⁵ Chart 10.5 illustrates that a significant number of LEAs struggle to fill positions in all special education licensure areas. In addition, these same LEAs predicted that they will continue to struggle with hiring in future years. Graph 10.2 and Chart 10.6 show the future hiring struggles as predicted by district hiring officials. Both images show that special education positions are expected to be among the most difficult to fill.

¹⁵ PELSB's 2019 report that followed the MDE report did not break data down by "hard to fill" licensure areas. However, PELSB does report how many districts resorted to "special permissions" to fill positions in special education. We reported this data in Chart 1.

Finally, the numbers reflected in these three images fail to account for the attrition of ESPs. As noted earlier, the state needs more data about why ESPs are leaving special education classrooms. Our members provide anecdotal evidence about ESPs quitting within the first few hours of their employment. However, the state should focus research attention on the problems of retaining ESPs assigned to work with special education students.

ANSWER OPTIONS	EASY	SOMEWHAT DIFFICULT	VERY DIFFICULT	COULD NOT FILL ALL VACANCIES	N/A NO POSITIONS IN THIS DISTRICT OR CHARTER SCHOOL	N/A NO VACANCIES FOR THIS POSITION
Acedemic and behavorial strategist*	14	46	72	17	99	159
Autism spectrum disorders*	11	43	115	37	40	161
Blind or visually impaired*	2	6	50	12	124	213
Career and technical with disabilities	4	13	33	4	129	224
Deaf or hard of hearing*	3	15	45	12	106	226
Developmental /adaptive physical education*	15	36	42	12	59	243
Developmental disabilities*	13	56	100	22	28	188
Emotional behavior disorders*	16	65	130	54	10	132
Physical and health disabilities *	11	27	56	11	50	252
Special education director	32	31	34	1	66	243
Speech- language pathologist*	15	47	85	23	31	206
Special education early childhood*	15	40	78	16	65	193
Specific learning disabilities*	18	72	89	35	21	172

CHART 10.5: SPECIAL EDUCATION HIRING DIFFICULTIES

*Denotes licensure area included on the Federal Shortage Report. Chart 10.5 reprinted from (Minnesota Department of Education, 2017, p. 26).

GRAPH 10.2: EXPECTED LEVEL OF DIFFICULTY IN HIRING TEACHERS WITHIN THE NEXT FIVE YEARS



Graph 10.2 reprinted from (Minnesota Department of Education, 2017, p. 32).

CHART 10.6: PREDICTIONS OF FUTURE HIRING PRACTICES FOR LEAS

ANSWER OPTIONS	EASY	SOMEWHAT DIFFICULT	VERY DIFFICULT	WILL NOT BE ABLE TO FILL ALL VACANCIES*
Art	38	94	82	12
Music	28	103	101	8
Special education	4	58	190	93
Early childhood	23	81	106	18
Elementary education	118	145	33	3
Computer/ keyboarding	11	54	67	8
Chemistry	5	39	143	32
Life sciences	12	78	118	19
Physical sciences	6	63	135	29
Mathematics	5	76	149	25
Communication arts and literature (English)	46	113	76	4
Social studies	94	100	36	0
Spanish	11	67	102	18
American Sign Language	1	10	26	3
Career and technical education	3	32	104	29
English as a second language	6	40	100	26
Immersion education	2	7	22	4
Administrators (e.g., principals)	38	147	79	2
Licensed support staff	27	142	91	10
Staff with multiple licenses	5	68	177	44

*100. Chart 10.6 reprinted with permission from (Minnesota Department of Education, 2017, p. 32).

OPPORTUNITY #3: EDUCATOR WORK ENVIRONMENTS AND STUDENT SERVICES

Minnesota has made several incomplete gestures at improving the work life and school environment for educators and students in special education. Countless opportunities and options exist for lawmakers. However, we choose to focus on one important concerns for teachers, caseload limits, and one important concern for students, disproportionality in identification, that could greatly improve special education in the state.

> The answers will lie in local communities. The state should facilitate the ability for LEAs to create ways to reduce the work stress of educators in special education.

First, Minnesota has approached the caseload/workload of special educators from many angles. Unfortunately, caseloads look different and require different time based on diagnosis and student location. The OLA (2013) correctly argued, after interviewing several stakeholders, that

caseload rules do not take into account current classroom conditions, and a simple headcount does not necessarily indicate the size of teachers' workloads. Some educators said students have more needs than they did in the past. Several advocates agreed, adding it may be better to help manage teachers' *workload*, not their *caseload*. (p. 103)

Minnesota's special educators carry tremendous caseloads and administrative responsibilities. Many educators complain that they do not have time to spend with their students. Unfortunately, there is not a single answer to solve this challenge at the state level. Districts are required to adopt a board approved workload limit policy for students receiving 60 percent or less direct daily SPED service, and some LEAs and local bargaining units have come to productive comprises. Others have failed to reach consensus. We do not believe the state needs to call for another study group, but we do see a conversation about caseloads as an important opportunity to improve conditions for educators and students. In many cases, the answers will lie in local communities. The state should facilitate the ability for LEAs to create ways to reduce the work stress of educators in special education. Researchers have proven that students of color, especially Black males and Black females, are frequently: (1) identified as needing special education when in fact that may actually qualify for gifted programs or (2) denied services that could improve their experience in school. This is a structural problem. It is not the fault of any one group or actor.

Second, the state can improve the school experience of students by having a serious conversation about racial disproportionality as it relates to special education equity. Researchers have proven that students of color, especially Black males and Black females, are frequently: (1) identified as needing special education when in fact that may actually qualify for gifted programs or (2) denied services that could improve their experience in school. Also, many students might be gifted and require special education services. This is a structural problem. It is not the fault of any one group or actor. White students are more likely to receive a correct diagnosis than their peers of color. Donovan and Cross (2002) have argued:

who is classified as disabled or gifted at a point in time is in part a function of the diversity of students and the issues that diversity poses for general education. But it is also a function of social policy, the scientific and philosophical understandings that guide it, and the resource allocation that is determined by it. (p. 25)

"Disproportionality in special education can be viewed as both an outcome of structural inequality and as part of broader practices that disadvantage racial minorities, especially if services result in less access to the curriculum and fewer learning opportunities."

Cooc (2018) has also argued "disproportionality in special education can be viewed as both an outcome of structural inequality and as part of broader practices that disadvantage racial minorities, especially if services result in less access to the curriculum and fewer learning opportunities" (p. 3). We know that implicit bias, cultural difference, and structural racism skew the identification of students of color needing special education services. This is a serious problem for the students of Minnesota, and this is another opportunity for lawmakers to improve the quality of special education in the state. This conversation is critical for the future of special education students. We agree with Donovan and Cross (2002) who

recognize the paradox inherent in a charge that posits disproportionate placement of minority students in special education as a problem. The same program that can separate disadvantaged students from their peers, distinguish them with a stigmatizing label, and subject them to a curriculum of low expectations can also provide additional resources, supports, and services without which they cannot benefit...disproportionality in eligibility for special education many not be problematic when the effect is to enhance opportunity to learn and provide access to high-quality curriculum and instruction. However, disproportionality is a problem when it stigmatizes or otherwise identifies a student as inferior, results in lowered expectations, and leads to poor educational outcomes such as dropping out, failure to receive a meaningful diploma, or diminished chances of moving to productive postschool endeavors. (p. 20)

Special education, like all other branches of the E-12 system, faces equity problems. The state must convene the right voices and seize the opportunity to improve the lives of all students in special education, especially students of color.

Potential Solutions

We now conclude with six groups of solutions Minnesota lawmakers can use to start improving special education services for all students and educators. These six will not seize every opportunity available to lawmakers. However, they are a good place to start. Minnesota lawmakers should:

SOLUTION #1: JOIN A FEDERAL COALITION TO ADVOCATE FOR FULL FUNDING OF IDEA.

Minnesota needs to pressure the federal government to meet its budgeting promises for funding special education. This is the only way Minnesota will be able to meet the shortfalls facing LEAs across the state. Lawmakers should follow the recommendations of the NCD (2018) and advocate for increased federal "funding to the maximum authorized amount" (p. 9). Lawmakers could start by supporting the efforts of the before mentioned IDEA Full Funding Coalition.

Minnesota lawmakers and education stakeholders can start by asking the Minnesota Congressional delegation to reintroduce and help pass H.R. 4602 from the 115th U.S. Congress. Representative Tim Walz, who now serves as the 41st Governor of Minnesota, was an original sponsor and champion of this bill. If passed, the legislation would allow the federal government to increase aid on an incremental basis in order to reach the 40% funding promise.

SOLUTION #2: IMPROVE SOME MINNESOTA PAPERWORK REQUIREMENTS THAT EXCEED FEDERAL STATUTE.

It is a known fact, documented by the OLA (2013) report on special education, that Minnesota has several paperwork requirements that go beyond what is required by the federal government. This is contributing to teacher burnout. One educator told the OLA (2013) researchers that "she had recorded her time to write evaluations for four students; she tallied having worked eight out of nine weekends for a total of 28.5 extra hours and 63 hours during the intervening weeks to complete the evaluations" (p. 98). State lawmakers need to review the several state agency recommendations about reducing administrative burdens put on educators.

Paperwork is important and necessary because it provides a window for parents to see what is happening while their children are at school. However, there are several requirements put on teachers by the state that do not increase the size of that window. Instead, they produce redundant information and take special educators away from students.

We want to be very direct with this argument. We believe paperwork is important and necessary because it provides a window for parents to see what is happening while their children are at school. However, there are several requirements put on teachers by the state that do not increase the size of that window. Instead, they produce redundant information and take special educators away from students.

There are many ideas about how to reduce state requirements that add to the requirements of the federal IDEA. Eliminating short-term objectives (STO) would be the first place to start the process of decreasing the paperwork burden placed on special educators. The 2013 OLA report on special education confirms that STOs are unnecessary and time consuming. Educators from across the state told researchers with the OLA (2013) the following:

- STOs "lead to unnecessary busy work" that increases the bureaucratic burdens put on teachers" (p. 97).
- STOs dramatically increase the workload of our special educators for little gain. The OLA researchers documented that, "One teacher said when a student has four or five long-term goals with at least two short-term objectives for each, it equates to a lot of writing that does not necessarily help the students" (pp. 97-98).
- The elimination of STOs would have "no major impacts" if they were removed from state requirements (p. 98).

Unnecessary paperwork burdens are leading to teacher burnout and adding to the teacher attrition problems. Paperwork is very important but some requirements are redundant and cumbersome and provide very little, if any, new information for families. Eliminating STOs is a strong first step to lifting a burden facing special educators.

SOLUTION #3: IMPLEMENT SOME OF THE RECOMMENDATIONS FROM THE 2013 OLA REPORT ON SPECIAL EDUCATION.

In 2013, the OLA provided a valuable and comprehensive analysis of special education services in Minnesota. We have cited many of their recommendations throughout this section on special education. We encourage state lawmakers to review the findings. We agree with the OLA (2013) researchers that "changes are needed in special education to increase equity in its funding, help control costs while meeting student needs, and ensure local education agencies [comply] with legal requirements without creating undue workload burdens for them" (p. ix).

"Changes are needed in special education to increase equity in its funding, help control costs while meeting student needs, and ensure local education agencies [comply] with legal requirements without creating undue workload burdens for them."

We do not completely agree with all of the OLA's (2013) recommendations. However, we think the state should start by reviewing the agency's following ideas:

- The Legislature should consider modifying laws that require school districts to pay special education costs of students who choose to enroll outside their resident districts (p. 67).
- The Minnesota Department of Education should evaluate its monitoring process to identify ways to improve special education teachers' understanding of compliance requirements (p. 79).
- The Minnesota Department of Education should continue its efforts to streamline paperwork required in special education and also evaluate the effectiveness of districts' paperwork reduction strategies to encourage additional efficiencies (p. 100).

SOLUTION #4: FUND A STATEWIDE, ONLINE IEP SYSTEM.

The state Legislature must fund the statewide, online IEP system, and MDE must make the system available to all districts at no cost. The Legislature already authorized MDE to seek RFPs to build this program. Then, the Legislature stripped funding for this system. Online IEP systems "increase access to documents for multiple service providers, allow teachers to maximize work time and generate reports of student progress, and help school districts maintain compliance with laws and regulations" (More & Hart, 2013, p. 24). An online IEP system would also allow districts to share information about transferring students more easily. Currently, districts must enter into their own contracts with online IEP providers. This is more of a financial burden for smaller, rural districts than it is for large districts. All districts should have free access to a single system that streamlines the sharing of student information across the state.

SOLUTION #5: HIRE AND TRAIN MORE ESPs FOR SPECIAL EDUCATION CLASSROOMS.

Education support professionals play critical roles in special education classrooms. Hagaman and Casey (2018) found that special education teachers, especially those in their first year, relied on the knowledge and help of ESPs. Unfortunately, most districts do not have the funds to hire enough ESPs, and all districts lack funding to provide special education ESPs paid professional development. Many ESPs walk off the jobs due to a lack of training, and this leads to high attrition costs for districts and poor classroom environments for students and teachers. The state Legislature should revisit the bills that create a statutory requirement that all ESPs receive 16 hours of paid professional development. That preparation could decrease attrition and save money on the back end for districts.

SOLUTION #6: TARGETED POLICY INTERVENTIONS.

Solutions 1-5 speak to systemic problems in special education. Lawmakers can also make a big difference by introducing legislation to target specific issues facing educators and students. They include:

- Increase public awareness of fetal alcohol syndrome (FAS). Many special education students with FAS incorrectly carry EBD diagnoses. Early identification of FAS can greatly improve the interventions educators provide to students and families.
- 2. Increase funding and efforts to educate all students in the least restrictive environment possible.
- 3. Increase funding to coordinate state collaboration among schools, community services, and groups working with Indigenous populations. Many Native American students in Minnesota are in special education programs, and state agencies need to facilitate greater collaboration among agencies and communities to ensure all students are receiving both a proper diagnosis and proper services.
- 4. Increase measures to help special educators facing compassion fatigue. Many special educators leave the profession due to intense burnout.
- 5. Increase funding for professional development that allows educators to bridge the special education/general education divide. Students benefit from multidisciplinary teams of educators working in collaboration.
- 6. Provide all LEAs with funding to create assessment teams. Licensed educators assisting other licensed educators with due process paperwork reduces burnout. Teachers assisted by assessment teams also have more time to spend on direct student contact.
- 7. Increase efforts to hire more teachers and ESPs of color to work in special education.
- 8. Provide funding to increase parent awareness of special education services before kindergarten. Many students would greatly benefit from an earlier diagnosis and intervention.
- Pass legislation preventing Tier 1 teachers from working in Level IV self-contained special education settings. It is dangerous and irresponsible to allow adults without special education training to work with Minnesota's most at-risk students.
- 10. Provide all LEAs, especially in greater Minnesota, with access to adequate facilities to provide all students, especially students in special education, with a FAPE.
- 11. Fund quality, paid professional development for all ESPs working in special education

Concluding Thoughts

Special education needs serious policy interventions. We have offered places state leaders can begin to correct the harm caused by past legislative acts.

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